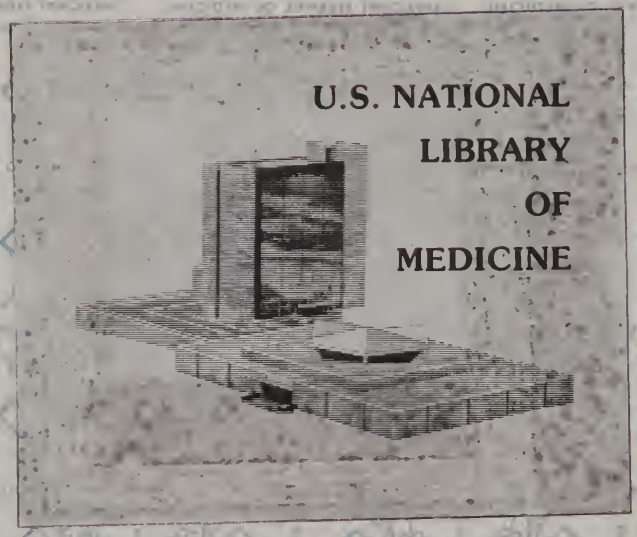
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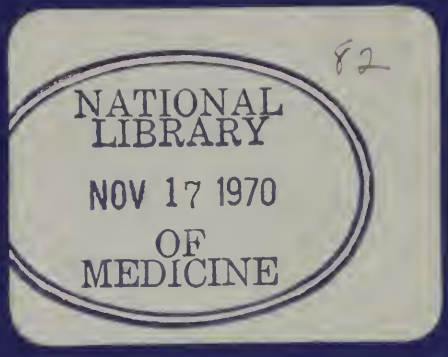
Annotated Bibliography on

VITAL and HEALTH STATISTICS



U. S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE
Public Health Service
Health Services and Mental Health Administration

NATIONAL CENTER FOR HEALTH STATISTICS

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PHILIP S. LAWRENCE, Sc.D., *Associate Director*

OSWALD K. SAGEN, PH.D., *Assistant Director for Health Statistics Development*

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_____, *Medical Consultant*

JAMES E. KELLY, D.D.S., *Dental Advisor*

EDWARD E. MINTY, *Executive Officer*

MARGERY R. CUNNINGHAM, *Information Officer*

OFFICE OF HEALTH STATISTICS ANALYSIS

IWAO M. MORIYAMA, Ph.D., *Director*

DEAN E. KRUEGER, *Deputy Director*

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VITAL and HEALTH STATISTICS

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HEALTH, EDUCATION, AND WELFARE
Public Health Service
HEALTH SERVICES AND MENTAL HEALTH ADMINISTRATION
National Center for Health Statistics
August 1970

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Anal

Acknowledgments

The contents of this Annotated Bibliography on Vital and Health Statistics, 1965-1967, have been assembled and prepared through the efforts of several members of the staff of the Office of Health Statistics Analysis, National Center for Health Statistics. Dr. Clara E. Councell, then Deputy Director, initiated the retrieval search at the National Library of Medicine which has provided essential and excellent service on a continuing basis. After some experience with the search mechanism, Mrs. Thea Hambright, Statistician, modified and sharpened the search formulation, developed criteria for inclusion of articles in the Bibliography, and managed the selection of articles by staff of the Office of Health Statistics Analysis and the abstracting process at the Biological Sciences Communication Project, The George Washington University. Miss Helen M. Vavra, Statistician, assisted in the later stages of preparation for publication. Selection of articles for inclusion was made by Dr. I. M. Moriyama, Dean E. Krueger, and Dr. Helen C. Chase.

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Catherine Orner
Joy Stiller

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Elizabeth Hedges
Dorothy Lewis

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ANNOTATED BIBLIOGRAPHY

VITAL AND HEALTH STATISTICS 1965-1967

INTRODUCTION

This bibliography is intended for researchers, faculty, students, and others in the field of vital and health statistics. Public health workers in other fields may also find it of interest. It is designed to acquaint the reader with the existence of relevant literature through brief descriptions of the selected citations. Articles from journals and periodicals listed in Index Medicus for the two calendar years, January, 1966 through December, 1967 are included. The interval between month of journal publication and month of Index Medicus listing varies among journals; thus some 1965 journal issues are included and some 1967 issues are not.

1. Selection procedure

The primary source of the selections was monthly lists of vital and health statistics literature obtained from the National Library of Medicine (NLM). The NLM developed MEDLARS (Medical Literature Analysis and Retrieval System), a computer-based system used to prepare Index Medicus and other indexes. Approximately 175,000 articles are indexed each year from 2,300 biomedical periodicals. Analysts at NLM read the introduction and the summary of each article, scan its contents and assign MeSH terms (Medical Subject Headings) to describe the contents. MeSH is NLM's subject heading authority list and controlled vocabulary used in indexing and retrieving citations from the computer file. Articles in the MEDLARS files have an average of eight MeSH terms assigned.

This bibliography is the product of three distinct stages of search and selection: (1) a printout of vital and health statistics citations from the MEDLARS files for the specified time period, (2) a preliminary selection of relevant citations from the printout to be abstracted, and (3) a final selection of articles deemed relevant by the information provided in the abstracts.

For the first stage, about 200 MeSH terms were used to formulate a search strategy for obtaining certain articles unconditionally and other articles only under specified conditions. Articles explicitly dealing with non-human phenomena were excluded by the use of "suppression" terms. Some of the terms used in the formulation are given in Table 1. Terms in column 1 indicate that the subject heading is the main aspect of the article, and the formulation specifies that if any one of those terms is assigned, the article should be retrieved (unconditional). Terms in columns 2 and 3 indicate that the subject heading is a major or minor aspect of the article, and the formulation specifies that if at least one term from column 2 (substantive terms) *and* at least one term from column 3 (statistical terms) are assigned, the article should be retrieved (conditional). For example, if "malignant neoplasms" (substantive) was assigned, the article would be included in the printout only if a term such as "mortality" or "occurrence" or "age factors," etc. (statistical) were also assigned.

Printouts received from NLM were circulated among staff of the Office of Health Statistics Analysis in the National Center for Health Statistics for selection of citations to be abstracted. Table 2 gives the principal criteria for choosing citations. At this second stage, the only bases for determining whether a citation met the criteria were the title and the list of MeSH terms assigned to it. All selected articles were sent for abstracting to a librarian at the Biological Sciences Communication Project at The George Washington University.

Wherever possible, the author's abstract or summary was used. In cases of foreign language journals without English summaries, no attempt was made to translate. The major guidelines in preparing abstracts were to include the type of article (e.g., discussion, review), the presence of data, the time, place and population reference, and highlights of the findings as briefly as feasible.

The third and final stage of selection involved review of the completed abstracts by the staff of the Office of Health Statistics Analysis. At this stage, the reviewer had more information about the article and was, therefore, in a better position to determine if it met the criteria for inclusion given in Table 2.

All Public Health Service Publication 1000 series reports, *Vital and Health Statistics*, published by the National Center for Health Statistics were reviewed independently of the MEDLARS search. Some which were not retrieved by the search formulation have been included.

2. Evaluation of selection procedure

The time and effort necessary in the first stage for scanning retrieval lists, balanced against the number of articles found to be relevant, determined to a large extent the coverage provided by this bibliography. If all studies pertinent to vital and health statistics were to be retrieved, the universe would be substantially enlarged but the ultimate number of selections of particular relevance to this bibliography would not increase proportionately. The discrepancy between the number of initial retrievals and the number of ultimate selections arises primarily because the MeSH terms are used to index articles for a wide variety of purposes and are not necessarily geared to the needs of this bibliography. In particular, the emphasis here is on statistical treatment of biomedical data.

To estimate the amount of coverage provided by the retrieval strategy used here, a limited manual search of the literature was undertaken. Three of the most frequently cited journals, *The American Journal of Public Health,* the *Journal of Chronic Diseases,* and *Public Health Reports*, were surveyed for the Index Medicus period, the year 1967 (the journal issues ran from approximately August, 1966 to August, 1967). About two-thirds of the articles deemed relevant from the manual search appeared in the MEDLARS printouts using the retrieval strategy for this bibliography. This figure varied among the three journals chosen and could

Table 1. Example of Search Formulation Terms

Terms yielding Unconditional Retrieval[1] (1)	Terms yielding Conditional Retrieval[2]	
	Substantive (2)	Statistical (3)
Birth Certificates	Arteriosclerosis	Age Factors
Birth Rate	Arthritis	Educational Status
Death Certificates	Bronchitis	Ethnic Groups
Demography	Cardiovascular Diseases	Follow-up Studies
Epidemiology	Cerebrovascular Disorders	Health Surveys
Fertility	Diabetes Mellitus	Income
Morbidity	Hypertension	Occupations
Mortality	Influenza	Prospective Studies
Vital Statistics	Kidney Diseases	Retrospective Studies
Infant Mortality	Neoplasms	Sampling Studies
Fetal Death	Respiratory Distress Syndrome	Sex Factors
	Rheumatism	Statistics
	Syphilis	Occurrence
	Demography	Mortality
	Morbidity	
	Epidemiology	

[1] Major aspect of article.
[2] Major or minor aspect of article.

well vary among all the other journals included in the bibliography. A more detailed evaluation of MEDLARS,[1] not related to this bibliography and covering a wide variety of subjects, resulted in an average retrieval rate of relevant literature of a little less than 60 percent.

[1] Lancaster, F. W.: Evaluating the performance of a large computerized information system. *JAMA* 207: 114-120, Jan. 1969.

3. Contents

The bibliography is divided into 5 major subjects and 11 minor categories. Abstracts appear under only one subject and are numbered in the order in which they appear. Some are cross-referenced to other subjects, where the same number, author(s) and title are reproduced without the abstract. These out-of-order numbers cue the reader to the location of the abstract.

An alphabetical index of authors is given at the end of the bibliography. In accordance with Index Medicus practice not more than three authors per article are listed in the index and in the bibliography.

Table 2. Criteria for Inclusion and Exclusion

Inclusion	Exclusion
– Incidence of mortality or incidence or prevalence of morbidity for large geographic areas (e.g. major cities of the world, states of the U.S., countries) except data collected on a routine basis (e.g., monthly, annually, etc.)	– Case, clinical, or laboratory studies.
– Same as above on a local level if the methods used or the results obtained are of general interest.	– Local health studies or statistics not meeting the criteria for inclusion.
– Epidemiological studies or sample surveys of defined populations.	– Rare diseases and diseases not considered to be a major health problem in the United States.
– Data collection methods, study designs, analytic and evaluative techniques as applied to vital and health statistics.	– General statistical theory.
– Demographic studies including fertility, marriage, and divorce for large geographic areas except data collected on a routine basis; or for local areas if the methods used or the results obtained are of general interest.	– Routine statistical reports
– Natural history of diseases which are major public health problems.	– Non-human studies of disease.
– Factors (environmental or genetic) influencing the occurrence of disease.	– Health service programs or evaluations.
	– Studies of disease prevention, prognosis or treatment.
	– Editorials commenting on studies published separately.
	– Conference reports unless data are given which are not available elsewhere.
	– Health education, health manpower, or medical care utilization.
	– Nonstatistical discussions of disease problems for which data are available elsewhere.

I. MORBIDITY (except infant and maternal)

Symbols

(AA) = Author's abstract
(AEd) = Author's abstract; edited by librarian or editor
(Ed) = Librarian's or editor's abstract

1. ANONYMOUS.
Blindness: prevalence and longevity.
Statist Bull Metrop Life Insur Co 47:6-7, Aug 66.

In 1960, it was estimated that 2.1 per 1,000 U.S. population were either totally blind or impaired enough in vision to prevent normal activities. Studies show a higher prevalence of blindness among Negroes and American Indians, probably because of economic conditions. The major causes of blindness are thought to be prenatal in origin, diabetes, accidents, and vascular diseases. Longevity among the blind is somewhat below that of the general population. 2 tables. (Ed)

864. ANONYMOUS.
Epidemiological methods in the study of chronic diseases. Eleventh report of the WHO Expert Committee on Health Statistics.
WHO Techn Rep Ser 365:1-31, 67.

2. ANONYMOUS.
Further reductions in disability in 1966.
Statist Bull Metrop Life Insur Co 48:10-2, Mar 67.

The incidence of disability, lasting more than 8 days, has decreased among the employees of the Metropolitan Life Insurance Company covered by the Company's group insurance program, from 133 per 1,000 in 1965, to 127 in 1966. Women aged 25-44 showed twice the disability of men. Respiratory system diseases led as causes of disability. Then in the following order: disorders of the circulatory system including heart disease, accidental injuries, diseases of digestive, and of genitourinary systems. This last 3 were fewer than the number for respiratory diseases. Detailed tables by sex, age, and diseases are given. Tables. (Ed)

3. ANONYMOUS.
Some contrasts in morbidity distribution.
J Coll Gen Pract 11:74-83, Jan 66.

Excessive mineralization of the water of the Tamar River in England and correspondingly high levels in fruits and vegetables grown in the region are suspected of contributing to cancer morbidity. To test this hypothesis, 12 practitioners in the Tamar Valley (Devon and Cornwall) and 7 members of the Development Group of Practitioners (outside the Valley) recorded all episodes of illness seen in their practices during a year. Age and sex-specific rates were high for the Tamar Valley group for cases of neoplasm, diabetes, and diseases of the central nervous system, the cardiovascular system, urinary system, liver, gallbladder and pancreas. Rates were higher outside the Valley for respiratory diseases, skin diseases, diseases of ear and mastoid, back pain, sciatica, lumbago and menopausal symptoms. Environmental differences and artifacts of reporting may have influenced the rates. 1 table. 4 references. Appendix. (Ed)

4. ANONYMOUS.
The problem of arthritis.
Statist Bull Metrop Life Insur Co 48:7-9, Feb 67.

12,668,000 persons in the U.S. suffer from some form of arthritis (not including persons in institutions). The estimated prevalence of arthritis in broad age groups by age and sex are shown. The rate for women is 80% higher than for men, the rate for nonwhites is lower than for whites. 3,600,000 persons ages 18-74 have arthritis, and this occurs more frequently in low income families, who are also less likely to seek medical help. Incidence of arthritic diseases in employees of the Metropolitan Life Insurance Company is given. Arthritis is of minor importance as a cause of death, 1.1 per 100,000 population per year. 2 tables. 1 chart. (Ed)

5. ABBASI, A. S., HASHMI, J. A., ROBINSON, R. D., JR.
Prevalence of heart disease in school children of Karachi.
Amer J Cardiol 18:544-7, Oct 66.

2,661 boys and 1,341 girls ages 8-14 were examined in Karachi, Pakistan, to assess the prevalence rate of rheumatic and congenital heart disease. By well accepted criteria, 3.5 per 1,000 were found to have heart disease, 1.8 each for congenital and rheumatic heart disease. Throat cultures positive for hemolytic streptocci were found in 4.2%. Rheumatic fever and rheumatic heart diseases are essentially as common in Pakistan as in temperate and affluent nations. Comparative prevalence of heart disease in school populations of various countries is given. 2 tables. 27 references. (AEd).

6. ACHESON, R. M.
The epidemiology of acute rheumatic fever 1950-1964.
J Chronic Dis 18:723-34, Aug 65.

There has been a steady fall in the death rate from rheumatic fever and rheumatic heart disease, both sexes, all racial groups, U.S., 1950-1964. Morbidity, although the data are poor, is believed to have decreased also. Acute rheumatic fever follows in 3% of patients with streptococcal illness, suggesting that differences in the host may contribute to the pathogenesis of the disease. Blood group O is less likely to develop rheumatic carditis. Sexes are equally susceptible to acute rheumatic fever but females are more susceptible than males to Sydenham's chorea (especially in England and Wales). The disease occurs more often before the age of 5 and decreases after puberty. Towns have more cases than do rural areas; large families more than small. Bad housing and poor nutrition are contributing causes. Reasons for the changing epidemiological features may include such factors as increase in average pay, modern housing, clean milk, and availability of antibiotics. 1 table. 5 figures. 43 references. (AEd)

7. ADLER, E., ABRAMSON, J. H., ELKAN, Z.
Rheumatoid arthritis in a Jerusalem population. 1. Epidemiology of the disease.
Amer J Epidem 85:365-77, May 67.

Prevalence of rheumatoid arthritis was studied in a neighborhood of Jerusalem, Israel, by examining a population

sample. Diagnostic criteria of the American Rheumatism Association were used. The rate of probable and definite rheumatoid arthritis was 2% among women aged 20 and older and 0.5% among men. Prevalence in women was higher among immigrants of European origin than of North African or Asian origin. No significant relationships were found with education, marital status, recent exposure to potentially stressful situations, or other variables. 7 tables. 41 references. (AEd)

8. ADLER, E., ABRAMSON, J. H., GOLDBERG, R.
Rheumatoid arthritis in a Jerusalem population. II. Epidemiology of rheumatoid factors.
Amer J Epidem 85:378-86, May 67.

Serologic tests for rheumatoid factors in a sample in a neighborhood of Jerusalem, Israel. A human agglutination test (HEAT) and latex fixation test (LFT) were used. Prevalence of positive HEAT reactions was 1% and of positive LFT, 4%. Positive LFT reactions were more common among older persons but there were no sex differences. The specificity of HEAT in relation to probable or definite rheumatoid arthritis was 99%, and LFT, 96%. The sensitivity of HEAT was 12%. North African immigrants showed higher positive LFT reactions. Among persons with positive LFT reactions there tended to be a drop in titer on re-examination 6-9 months later. This was more noticeable among persons of African origin. 7 tables. 30 references. (AEd)

9. AITKEN-SWAN, J., BAIRD, D.
Cancer of the uterine cervix Aberdeenshire. Epidemiological aspects.
Brit J Cancer 20:624-41, Dec 66.

It is now generally accepted that cancer of the cervix is predominantly a disease of parous married women of middle age, particularly those who marry before age 20, who have large families, who have had more than one marriage partner, and who are wives of men in lower socioeconomic groups. In any year, in Aberdeenshire an average of 4 in 10,000 ever-married women aged 25 and over, and 1 in 10,000 single women can be expected to attend a hospital for the first time with cancer of the cervix. Rates are higher in the city than in the county of Aberdeen, in widowed and divorced women, and in lower socioeconomic groups. However, there is no significant excess of patients marrying under 20 years of age. Patients with 4 or more children had more cervical cancer than the general population; those with 7 or more children showed 3 times as much cervical cancer. 8 tables. 2 figures. 14 references. (AEd)

10. AIZAWA, T., TOTO, Y., ARAKI, G.
Epidemiological survey of cerebral apoplexy.
Saishin Igaku 20:2812-8, Oct 65. (JAP) No English summary.

11. ALDERMAN, A. J.
Acute conditions, incidence and associated disability, U.S., July 1964-June 1965.
Vital and Health Statistics. Series 10, No. 26, Dec 65.

Statistics from the Health Interview Survey on the incidence of acute illnesses and injuries and associated disability experienced by the civilian, noninstitutional population of the U.S. during the year 1964-65 distributed by condition groups and selected demographic characteristics. An average of about 2.1 acute conditions per person and about 8.3 days of associated restricted activity were estimated. Approximately half of these conditions were classified as respiratory. The incidence of common colds increased from the preceding year, mainly during the January-March quarter. The rate of common childhood diseases, however, declined from an estimated 13.3 cases per person in the preceding year to 8.7. 33 tables. (AEd)

12. ALDERSON, M. R.
Data on sickness absence in some recent publications of the Ministry of Pensions and National Insurance.
Brit J Prev Soc Med 21:1-6, Jan 67.

An evaluation of the special "Report on the Inquiry into the Incidence of Incapacity for Work. II. The Incidence of Incapacity for Work in Different Areas and Occupations." The aim of the report, covering England, Wales, and Scotland for the years 1958-61, is to provide a picture of extent and distribution of the problem so as to identify occupations and local areas that might warrant further identification. The data refer to the records for a 5% sample of persons insured—620,457 men were included. Both inception rate and average days of incapacity for "all causes" of morbidity and specific causes showed a marked inverse relationship to degree of skill required by an occupation. The data are also analyzed by air pollution levels. Problems of the data, including accuracy of diagnoses, are discussed. 4 tables. 10 references. (Ed)

13. ALPERT, J. J., KOSA, J., HAGGERTY, R. J.
A month of illness and health care among low income families.
Pub Health Rep 82:705, Aug 67.

During a summer period, when a sample of 78 urban families of low income kept family health calendars, illnesses caused interruptions in family life 1 of every 3 days. Persons receive medical care for only 1 of every 8 symptoms. The families recorded few upsetting events; many were probably left unrecorded or not even perceived. The emotional aspects of events and problems were in no instance brought to medical attention. A three-fold typology of families was distinguished by frequency of symptoms and upsetting events that the families experienced, by their responses to such symptoms and events, and by frequency of use of medical facilities. 6 tables. 15 charts. (AEd)

14. ALTER, M., LEIBOWITZ, U., SPEER, J.
Risk of multiple sclerosis related to age at immigration to Israel.
Arch Neurol 15:234-7, Sep 66.

Multiple sclerosis (MS) occurs more often in temperate zones and relatively rarely near the equator. If environment affects the frequency of MS, then migration from one zone to another should affect the risk. Also, if risk changes with migration at a particular age, it suggests that the disease was acquired before that age. A nationwide survey of MS completed in 1961 identified 282 patients alive in Israel. Prevalence varied by immigration origin. Europeans had 6 to 10 times higher rates than Afro-Asians; native-born Israelis resembled Afro-Asians in prevalence. Incidence increased if immigration from Europe occurred after age 15, suggesting that MS is acquired many years before symptoms develop, probably in early childhood before age 15. Tables. 10 references. (Ed)

15. ANDERSON, D. O., LARSEN, A. A.
The incidence of illness among young children in two communities of different air quality: A pilot study.
Canad Med Ass J 95:893-904, 29 Oct 66.

For Jan. 11-June 24, 1965, every absence for each grade one pupil in the public school system of 3 British Columbia towns was investigated by an interview with the parent. This pilot study was conducted in 2 contiguous communities, the site of a large kraft pulp paper mill, and in another non-industrial control community of similar climate. The results were nonconclusive, but some evidence was obtained to warrant the conduct of a more detailed 2-year study of broader population groups. No specific syndrome of gastrointestinal upset and headache was found, though this had been previously reported at other kraft mill locations. 14 tables. 3 figures. 14 references. (AEd)

16. BAHN, A. K., GARDNER, E. A., ALLTOP, L.
Admission and prevalence rates for psychiatric facilities in four register areas.
Amer J Public Health 56:2,033-51, Dec 66.

The use of a psychiatric case register for research is reported and rates of 1-day prevalence, 1-year admissions and 1-year prevalence are presented from 4 register areas in the U.S. Data are examined by central city versus other areas, by age, sex, and race, and by class of psychiatric facility. Despite large differences among the 4 areas, many similar patterns are found. From 1 to 1.5 out of every 100 persons received psychiatric services in a year. From 0.6 to 0.85 were under care on July 1, more than half as inpatients. From 0.4 to 0.8 were admitted to care annually, half or more as outpatients. During a year, as a group, nonwhites have a 30 to 80% greater risk than whites of becoming seriously incapacitated. 7 tables. 10 figures. 11 references. (AEd)

853. BAKER, T. D.
Problems in measuring the influence of economic levels of morbidity.
Amer J Public Health 56:499-507, Mar 66.

822. BARTON, D. E., DAVID, F. N., MERRINGTON, M.
A criterion for testing contagion in time and space.
Ann Hum Genet 29:97-102, Aug 65.

17. BAUER, M. L.
Characteristics of persons with diabetes, U.S., July 1964-June 1965.
Vital and Health Statistics. Series 10, No. 40, Aug 67.

Statistics on prevalence of diabetes from the Health Interview Survey by socioeconomic characteristics of the diabetic population, and their health status in terms of number of chronic conditions, disability days, and limitation of activity. 1.3% of the civilian, noninstitutional population of the U.S. was reported to be diabetic. Prevalence increased with age. The majority of diabetics had at least 1 other chronic condition, and the rates of disability from all conditions were roughly 3 times those of the total population. 5 tables. (AEd)

18. BAUER, M. L.
Current estimates from the health interview survey, U.S., July 1965-June 1966.
Vital and Health Statistics. Series 10, No. 37, May 67.

Provisional statistics on: incidence of acute illnesses and injuries and associated disability days; percent of the civilian, noninstitutional population with one or more chronic conditions; number of persons injured and associated disability days; number of hospital discharges; number of disability days associated with illness; and number of persons with corrective lenses. 20 tables. (AEd)

19. BECHELLI, L., MARTINEZ DOMINGUEX, V., PATWARY, K. M.
WHO epidemiologic random sample surveys of leprosy in Northern Nigeria (Katsina), Cameroon, and Thailand (Khon Kaen).
Int J Leprosy 34:223-43, Jul-Sep 66.

Some epidemiological data collected by WHO Leprosy Team (LAT) in random sample surveys in Northern Nigeria, Cameroon, and Thailand are reported and commented on. Proportion of lepromatous patients was 11% in Cameroon and 7% in Northern Nigeria. These rates are low compared with rates in South America and some countries in Asia but high enough to explain persistence of the disease in these two countries. Sex and age differences in prevalence are discussed. No ethnic differences were observed. 19 tables. 27 references. (AEd)

20. BICKEL, J., SCHAR, M.
Evaluation of the state of health of the population.
Schweiz Med Wschr 96:65-70, 22 Jan 66. (GER)

Owing to the importance which chronic diseases have assumed in recent decades, mortality statistics no longer provide sufficient insight into the health of the population. Morbidity statistics are essential for the study of diseases which are not fatal but have caused long term disability or limitation of activity. They are necessary for planning of hospitals and social services, and for estimating need for doctors and nursing staff. The best method of obtaining morbidity data would be a health survey of a sample of the total population. Another procedure, which is less reliable but simpler and cheaper to carry out, would be an inquiry among a random sample of general practitioners. 3 tables. 10 references. (AEd)

21. BLUMENTHAL, M. D.
Mental illness in parents of phenylketonuric children.
J Psychiat Res 5:59-74, Mar 67.

Results are presented of a field study to investigate the hypothesis that persons presumed heterozygous for phenylketonuria are more vulnerable to mental disorder than other persons. 331 persons were interviewed, including 108 parents of phenylketonuric offspring and 102 parents of children with cystic fibrosis. The mental health of parents was evaluated by a set of indices constructed by assigning numerical values to responses on a standard interview schedule. The parents of phenylketonuric children did not score differently from the other two groups, indicating that they were not more susceptible to mental health problems than the controls, at least as measured by the operational definitions used here. Some of the problems associated with field studies of psychiatric diseases are discussed. 7 tables. 1 figure. 36 references. (AEd)

22. BOLLO, L. E., GLEESON, G. A.
Persons hospitalized by number of hospital episodes and days in a year, U.S., July 1960-June 1962.
Vital and Health Statistics. Series 10, No. 20, Jun 65.

Data from the Health Interview Survey show that about 1 in 11 persons had 1 or more hospital episodes during an average year. About 86% had 1 episode and 11%, 2 episodes. The rate of multiple episodes was highest among persons in older age groups, those with low family income, and those who were living alone or with nonrelatives. 19 tables. (AEd)

23. BORHANI, N. O., HECHTER, H. H.
The application of statistical methods in the analysis of blood pressure distribution curves.
Ann NY Acad Sci 126:758-66, 6 Aug 65.

The Kolmogorov-Smirnov Two Sample Set was used to detect differences in the frequency distribution of systolic blood pressure among San Francisco longshoremen classified according to longevity of their parents. No difference was found between those whose parents died in middle age and those whose parents lived to 65 or older. Analytical method of dissection of curves revealed no evidence of bimodality in the frequency distribution of systolic blood pressure of men whose parents had died in middle age. 2 tables. 4 figures. 6 references. (AEd)

24. BRANOWITZER, A., CHOJNOWSKA, J., FRACZEK, O.
Morbidity and sickness rate of the population of Poland in 1960-1964.
Zdrow Publiczne 5:305-15, May 66.

The morbidity rate in Poland, 1960-64, including the method of collecting data and the validity of the statistics is discussed. Differences between morbidity of urban and rural populations and variability existing among different territories are noted. Suggestions are made for further analysis. (AEd)

25. BROWN, R. C., RITZMANN, L.
Some factors associated with absence of coronary heart disease in persons aged 65 or older.
J Amer Geriat Soc 15:239-50, Mar 67.

From June, 1965-March, 1966, at the Veteran's Administration Hospital in Portland, Oregon, 133 patients, ages 65-85 without demonstrable heart disease, were studied to determine possible factors accounting for the absence of coronary heart disease in the elderly. Findings were compared with 100 control patients, ages 65-79, known to have coronary heart disease. Data were obtained by personal interviews, physical and psychological examinations, and clinical laboratory tests. Factors found to be associated with the absence of coronary heart disease in these elderly veterans included moderate eating habits, no family history of heart disease, lack of concern with social status, regular physical exercise, a normal serum total cholesterol level, and absence of physical manifestation of generalized arteriosclerosis. 6 tables. 16 references. Appendix. (AEd)

26. BRUSHLINSKAIA, L. A.
Some aspects of morbidity among various age groups in the urban population. Based on data from the population turnover during 1958-1960.
Gig Sanit 30:33-8, Sep 65.

The structure of morbidity in separate age groups gives an idea of the dominating disease at a definite age. In young ages, 15-39 years, there is a prevalence of acute diseases that are, to a great extent, directly connected with the sanitary, hygienic factors of environment. In the middle and old age groups, 40-49 and more, the ratio of acute diseases and accidents in the morbidity rate falls considerably but there is a rise in the number of long-term diseases requiring dispensary supervision. At the age of 80 years and more, cardiovascular diseases account for more than 1/3 of the afflictions. 3 tables. (AEd)

921. BRUSHLINSKAIA, L. A., MAZUR, M. M.
On methods of depth investigation of the general morbidity of the population.
Zdravookhr Ross FED 9:22-4, Sep 65. (RUS)

27. BRYANT, E. E., TAUBE, C. A.
Utilization of institutions for the aged and chronically ill, U.S., April-June 1963.
Vital and Health Statistics. Series 12, No. 4, Feb. 66.

Statistics on number of beds, admissions, discharges, recipients of public assistance, and on the rate of occupancy in institutions for the aged and chronically ill. Based on a survey of nursing homes and related facilities, including chronic disease, geriatric, and mental hospitals, and all types of homes for the aged. 88% of beds were occupied. About half of the residents in institutions for the aged were recipients of public assistance. Of the persons discharged, about 1/3 were because of death. Although over 60% of the 1962 admissions were discharged before the end of the calendar year, average length of stay was 3 years, indicating that many residents stay short as well as long periods of time. 7 tables. (AEd)

28. CASSELL, E. J., MCCARROLL, J. R., INGRAM, W.
Health and the urban environment. Air pollution and family illness: III. Two acute air pollution episodes in New York City: Health effects.
Arch Environ Health (Chicago) 10:367-9, Feb 65.

Symptoms, such as chronic cough, asthma, eye irritation, and diarrhea, are studied in terms of the percent of the population reporting these symptoms before, during, and after air pollution episodes. Difficulties in interpreting data from this type of study are discussed. 4 figures. (Ed)

884. CEDERLOF, R.
Register of twins. Preliminary report.
Nord Hyg T 45:63-70, 64.

29. CEDERLOF, R., FRIBERG, L., JONSSON, E.
Morbidity among monozygotic twins.
Arch Environ Health (Chicago) 10:346-50, Feb 65.

In an investigation of morbidity due to tobacco smoking and air pollutants, it is desirable to take account of constitutional factors. A register of twins was established at the Karolinska Institute in Stockholm, Sweden, in 1959. About 75% of the 13,000 pairs of twins to whom a questionnaire was sent had returned their information. It is clear that for all groups of twins with dissimilar smoking habits, there are more stomach disorders, back troubles, pains in the chest, coughs and bronchitis among the twins who smoke or who smoke most. There is no significant difference in the effect of the urban and rural factors. As far as respiratory symptoms are concerned, results indicate that, compared with smoking, air pollution is of secondary importance in Sweden. 4 tables. 2 figures. 7 references. (Ed)

30. CHAPMAN, J. M., MASSEY, F. J. JR.
The interrelationship of serum cholesterol, hypertension, body weight, and risk of coronary disease. Results of the first ten years, followup in the Los Angeles heart study.
J Chronic Dis 17:933-49, Oct 64.

Results reveal differences in factors associated with risk of myocardial infarction or sudden death compared to factors associated with angina pectoris. High incidence of myocardial infarction was related primarily to high serum cholesterol levels, and angina pectoris to hypertension. Relative weight had little or no effect on these risks other than accounted for by the association of weight with serum cholesterol levels and with hypertension. Comparison of risks according to combined blood pressure, serum cholesterol, and relative weight patterns are presented. The implications of the findings to preventive measures and further studies are discussed. 12 tables. 2 figures. References. (AA)

31. CHAPMAN, J. M., REEDER, L. G., BORUN, E. R.
Epidemiology of vascular lesions affecting the central nervous system: The occurrence of strokes in a sample population under observation for cardiovascular disease.
Amer J Public Health 56:191-201, Feb 66.

The occurrence of cerebrovascular accidents is described in a sample population of 1,859 men who had been under surveillance in Los Angeles Heart Study since 1950. 36 cases of CVA occurring among white males aged 40-69 are described and discussed with respect to various antecedent characteristics. An association of cerebral hemorrhage with high blood pressure was noted. Cerebral thrombosis was associated with high blood pressure and with high socioeconomic status. No association of any form of CVA with elevated serum cholesterol was observed. Further observation of the study population is in progress. 13 tables. 5 figures. 20 references. (AEd)

32. CHAPMAN, J. M., REEDER, L. G., MASSEY, F. J., JR.
Relationships of stress, tranquilizers, and serum cholesterol levels in a sample population under study for coronary heart disease.
Amer J Epidem 83:537-47, May 66.

An association of serum cholesterol levels with the use of tranquilizing drugs was observed in a sample population (of California males) under study for coronary heart disease. For the 68 men taking tranquilizers, the mean cholesterol was 274 mg %; for the 1,073 men not taking tranquilizers, the mean was 251 mg %. While the use of tranquilizers was associated with certain measures of stress, the high cholesterol levels among men taking these drugs occur independently of the stress indicators used in this study. The high cholesterol levels in men on tranquilizers could not be accounted for by the individual factors studied, including body weight, blood pressure, physical activity, smoking habits, and underlying diseases and conditions. 8 tables. 31 references. (AA)

33. CHESLER, E., LEVIN, S., DU PLESSIS, L.
The pattern of rheumatic heart disease in the urbanized Bantu of Johannesburg.
S Afr Med J, 40:899-904, 15 Oct 66.

The pattern of acute rheumatic fever and rheumatic heart disease in the urbanized Bantu of Johannesburg is described. Acute rheumatic fever was found to have a high incidence at Baragwanath Hospital (10.6/1,000 admissions below age 10) and to exist in virulent form because of the youth of the patients and the frequency of carditis and congestive cardiac failure. An analysis of patients submitted for surgical relief of mitral valve disease showed a remarkable predilection for young patients. A comparison of the mortality for rheumatic heart disease in Johannesburg shows that the Bantu are more severely affected than the whites, because of the high proportion of deaths in the younger age groups. 9 tables. 47 references. (AA)

34. CHIAZZE, L., JR.
Morbidity survey and case register estimates of cancer incidence.
Nat Cancer Inst Monogr 19:373-84, Jan 66.

Comparison of the estimates of cancer incidence from morbidity surveys and from continuing case registers in Allegheny County, Pennsylvania, Iowa, and Connecticut. The two techniques yielded substantially different estimates for a number of sites of cancer. In each instance, differences were primarily due to undercnumeration by the register. Although the survey did count some old, previously diagnosed cases as new cases, this method provided estimates of incidence that were closer to the best estimates, on the basis of all information, than did the register. 3 tables. 6 references. (AEd)

35. CHIAZZE, L., JR.
Trends in cancer incidence in Allegheny County, Pa.
Pub Health Rep 80:885-90, Oct 65.

Relatively few striking changes were observed in cancer incidence rates for specific primary sites among either men or women in Allegheny County, Pennsylvania, from 1947 to 1957-58. The following changes are of particular interest: decline in the incidence rates per 100,000 for cancer of the stomach among both men (32 to 21) and women (19 to 12), for cancer of the uterine cervix (31 to 20), and for cancer of the corpus and other uterus (24 to 22); increase for lung cancer among men (25 to 42) and for breast cancer among women (62 to 66). Shifts in the incidence of cancer in Allegheny County are generally consistent with those reported for New York State, both in magnitude and direction. Relatively little change occurred in incidence except for the sites mentioned. 4 tables. 10 references. (AEd)

36. CHROBOK, H., WOJCIK, G., ZAJICZEK, J.
Influence of meteorological and weather conditions on bronchial asthma, cardiac infarction and mortality.
Przegl Lek 22:419-21, 66.

On the basis of synoptic maps and terminal meteorological observations, data for hospitalized patients treated in 1964 have been analyzed from the point of view of meteorotropism. 5 references. (AEd)

37. CLARK, W.
Operational definitions of drinking problems and associated prevalence rates.
Quart J Stud Alcohol 27:648-68, Dec 66.

Data are from a longitudinal study of use of alcoholic beverages, noninstitutional adult population, San Francisco. A sample of 991 (weighted) was drawn by area probability techniques. Prevalence estimates are given for 11 indices which represent 4 elements to define alcoholism: excessive intake, mental disturbance due to

drinking, disturbance of social and economic functioning, and loss of control over drinking. Prevalence varied greatly according to index but in each case was higher among men. For any one or more of the 11 indices, the rate was 6% (9.5% among men, 4% among women). Changes in criteria of recency and severity substantially alter prevalence estimates. 4 tables. 8 references. (AEd)

38. COBB, S., KASL, S. V.
The epidemiology of rheumatoid arthritis.
Amer J Public Health 56:1657-63, Oct 66.

Data from various studies are presented and discussed; several conclusions are drawn. Rheumatoid arthritis increases in frequency with age, is reported more frequently in women than men, is ubiquitous but does show geographic variation, and is unlikely to be explained etiologically by genetics. The disease is more common in the lower social classes, and "status incongruence" of the parents (i.e., the mother and father differed widely on education and occupation level) may contribute to it via the intervening variable of anger irritation. 5 tables. 1 figure. 17 references. (AEd)

39. CUTLER, S. J.
The use of tumor registry data.
Calif Med 106:98-107, Feb 67.

The End Results Group, sponsored by the National Cancer Institute, coordinated a national cooperation program for evaluating the results of cancer therapy. 3 central tumor registers plus 9 hospital registries participated. During 1940-59, there was an increase in 5-year survival rates among patients with carcinomas and sarcomas (solid tumors). Preliminary data for 1955-59 suggest that the upward trend is leveling off. A smaller absolute increase in 5-year survival rates occurred among patients with lymphomas and leukemia. These increases in survival rates coincided with more frequent uses of surgical operation for solid tumors and more frequent use of chemotherapy for lymphomas and leukemia. 3 tables. 6 references. 13 charts. (Ed)

40. DAMON, A.
Delineation of the body build variables associated with cardiovascular diseases.
Ann NY Acad Sci 126:711-27, 6 Aug 65.

The relevance of body build to cardiovascular disease has been amply documented for both hypertension and coronary heart disease. Somatotype (fat and bony-muscular components of body build) shows closer association with disease than measures of height and weight. But the nude photograph required for somatotyping discourages widespread use of this method. Studies are cited which show that somatotype can be predicted from body measurements and the type remains reasonably constant with advancing age despite weight gains. Predicted somatotypes are being tested as risk factors in the Framingham Heart Study. Disease outcome may be predicted by bypassing somatotypes and using body tissue configuration or body fat from skinfold measurements. 8 tables. 28 references. (AEd)

41. DAWBER, T. R., KANNEL, W. B., MCNAMARA, P. M.
An epidemiological study of apoplexy ("strokes"). Observations in the Framingham study on association of various factors in the development of apoplexy.
Trans Amer Neurol Ass 90:237-40, 65.

In a prospective longitudinal epidemiological study of coronary heart diseases conducted in Framingham, Massachusetts, the incidence of "stroke" has been studied among 5,208 adults, 30-59 years of age. Cases of apoplexy can be recognized and classified in a general population with reasonable certainty. A low rate of brain hemorrhage was observed in this population. Similarly, incidence of myocardial infarction in women, and of brain infarction in both men and women contrasts with the much higher rate of myocardial infarction in men. Many host and environmental characteristics relate similarly to the subsequent development of both myocardial and brain infarction. Although certain differences are apparent, current data tend to support the concept of similarity in the mode of development of both myocardial and brain infarction. (AEd)

42. DAWBER, T. R., KANNEL, W. B., MCNAMARA, P. M.
The prediction of coronary heart disease.
Trans Ass Life Insur Med Dir Amer 47:70-104, 64.

Coronary heart disease is indicated as a disease in which a preventive approach is highly desirable. The Framingham, Massachusetts, study, begun in 1950 by the National Heart Institute, is cited. Sex differences and similarities in incidence of angina pectoris, myocardial infarction, and sudden death are noted. Serum cholesterol, blood pressure level, weight, cigarette addiction, and combinations of risk factors are discussed. Importance of E.C.G. in evaluating state of health and predicting future clinical disease is mentioned. From clinical and laboratory examinations of presumably healthy adults free of evidence of coronary heart disease, it is possible to group individuals on the basis of their relative risk of developing clinical manifestations of this disease in subsequent years. 2 tables. 25 figures. References. (Ed)

43. DEMOLE, M. J., HECKER, G.
Seasonal periodicity of duodenal ulcer. A statistical study.
Gastroenterologia (Basel) 105:82-90, 66.

Analysis is made of seasonal periodicity of 198 cases of uncomplicated duodenal ulcer. 73% showed a periodic evolution. Of these 36% suffered or consulted a physician March-May; 29%, September-November; 22%, December-February; and 14%, June-August. The differences were statistically significant. (AEd)

326. DENOIX, P.
On cancer mortality and morbidity in various countries.
Un Med Canada 94:430-7, Apr 65. (FR)

44. DENSEN, P. M., JONES, E. W., BASS, H. E.
Respiratory symptoms and tests among New York postmen.
Arch Environ Health (Chicago) 10:370-72, Feb 65.

Report of a study to estimate the prevalence of respiratory symptoms and impaired respiratory function among two defined groups in New York City: 6,000 postmen and 8,000 transit workers. Preliminary data on smoking,

reported respiratory symptoms, absenteeism, and impaired respiratory function are discussed as well as plans to followup groups of men to determine the prognostic significance of the findings. 6 tables. (Ed)

45. DEVINE, B.
Mean blood hematocrit of adults, U.S., 1960-1962.
Vital and Health Statistics. Series 11, No. 24, Apr 67.

Findings on hematocrit values obtained from the Health Examination Survey for adults, ages 18-79, compared with other surveys. The relationship of mean blood hematocrit to age, race, sex, family income, education, residence, marital status, usual activity, occupation, and industry are examined. Mean hematocrit was higher for men and for whites, and varied by residence, usual activity, and occupation. 20 tables. (AEd)

46. DJORDJEVIC, B. S., JOSIPOVIC, V., STRASER, T.
The 1st results of investigations on the epidemiology of coronary disease in 3 different population groups in Serbia.
Actualities Cardiol Angeiol Int 15:15-21, 66. (FR)

Three groups of the population of Serbia, agricultural workers, industrial workers, and intellectuals, ages 35-60, were studied for the presence of coronary disease. There was a statistically significant difference between the agricultural workers and the intellectuals. The latter group of 74 persons had the largest number of cases of coronary heart disease, the highest incidence of systolic and diastolic hypertension, the highest blood cholesterol levels, and the highest incidence of obesity and diabetes mellitus. These are only early findings and further research is needed. 17 tables. 6 references. (AEd)

327. DOLL, R.
Worldwide distribution of gastrointestinal cancer.
Nat Cancer Inst Monogr 25:173-90, Jul 67.

47. DOUGHERTY, J. D.
Cardiovascular findings in air traffic controllers.
Aerospace Med 38:26-30, Jan 67.

A two-year employee health study of air traffic control specialists (ATCS) is reported. 1,218 ATCS and 804 non-ATCS were compared for prevalence of hypertension and ECG abnormality. Two trends, not statistically significant but worthy of further study, were that journeymen radar ATCS showed a higher prevalence of both ECG abnormality and hypertension than ATCS overall. Two significant differences were lower prevalence of hypertension in ATCS than in non-ATCS, and higher prevalence of ECG abnormality in radar journeymen ATCS than in non-ATCS. 2 tables. 7 figures. 12 references. (AEd)

48. DOUGLAS, J. W., WALLER, R. E.
Air pollution and respiratory infection in children.
Brit J Prev Soc Med 20:1-8, Jan 66.

3,866 children in areas of Britain with different levels of air pollution were examined for respiratory infections. Effects of sudden increases in air pollution, for example the London fog of 1952, are taken into account. Results are simple and consistent. Upper respiratory tract infections were not related to the amount of air pollution, but lower respiratory tract infections were. Boys and girls were similarly affected. The relationship between air pollution and lower respiratory tract infections was found at all age levels of these children (under age 15). 9 tables. 6 references. Appendixes. (AEd)

49. EDERER, F., MYERS, M. H.
Temporal-spatial distribution of leukemia and lymphoma in Connecticut.
J Nat Cancer Inst 35:625-9, Oct 65.

With a recently developed statistical technique, cases of leukemia and lymphoma diagnosed among Connecticut residents, 1945-59, were tested for the presence of 1-2-year clusters within towns. The method had previously been found very powerful in detecting the case-clustering of poliomyelitis and infectious hepatitis. The leukemia cases, both childhood and all ages, showed no tendency to occur in 1- or 2-year clusters. The lymphoma cases (all ages) tended to cluster. When cases of leukemia and lymphoma were combined as if they had a common etiology, a result consistent with a hypothesis of no clustering was obtained. 2 tables. 13 references. (AA)

50. EDINGTON, G. M., MACLEAN, C. M.
A cancer rate survey in Ibadan, Western Nigeria, 1960-63.
Brit J Cancer 19:471-81, Sep 65.

Methods employed in a cancer rate survey in Ibadan, Western Nigeria, are described. Incidence of malignant disease in Ibadan is similar to that in the U.S. until age 50 in males and 20 in females. Over these ages, malignant disease is much less common in the Nigerian. Particular attention is drawn to the actual drop in cancer incidence in the elderly in Ibadan which appears to occur a decade or two earlier than it does in the U.S. nonwhite population. The incidence of four of the most common tumours in Ibadan (carcinoma of breast, cervix, liver and stomach) is compared with the incidence in the U.S. white and nonwhite populations. 7 tables. 2 figures. 7 references. (AEd)

51. EISENBERG, H., KULA, J. J., ODOARDO, D. F.
Epidemiology of coronary heart disease in Middlesex County, Connecticut.
J Amer Diet Ass 47:391-5, Nov 65.

The Middlesex County Coronary Heart Disease Study of Nutrition was a pilot project including 60 patients who survived initial primary myocardial infarction at least 6 months and 120 age-matched controls. All were white males 35-64 years of age. Patients had statistically significant higher levels than controls in: caloric intake, carbohydrates, vegetable proteins and fats, linoleic acid, and snack consumption. No significant difference was found in total fat consumption, percentage of fats made up of saturated fatty acids, of animal fats, and the ratio of unsaturated to saturated fatty acids. Further nutritional studies on large population groups employing different methodologies are needed to settle differences of opinions among investigators as to the dietary importance and its implications in the development of myocardial infarction among white males. 4 tables. 2 figures. 4 references. (Ed)

52. ELINSON, J.
Epidemiologic studies and control programs in alcoholism. VII. Discussion.
Amer J Pub Health 57:991-6, Jun 67.

Discussion of papers presented at an APHA meeting. The argument that increased liquor prices would reduce consumption is rejected. Ecological relationships between

alcohol consumption and mortality from cirrhosis of the liver are noted. Interpretation of the relationship is complicated by difficulties in diagnosing cirrhosis and in establishing the true level of liquor consumption. 30 references. (Ed)

53. ENGEL, A., BURCH, T. A.
Osteoarthritis in adults by selected demographic characteristics, U.S., 1960-1962.
Vital and Health Statistics. Series 11, No. 20, Nov 66.

Prevalence of osteoarthritis (OA) obtained from the Health Examination Survey for adults, ages 18-79. Examination of the relationship of the prevalence of OA to family income, education, marital status, usual activity status, occupation, and industry. Among the differentials noted were higher than expected OA prevalence for men employed as craftsmen and in the mining and construction industry. 19 tables. (AA)

54. ENGEL, A., BURCH, T. A.
Rheumatoid arthritis in adults, U.S., 1960-1962.
Vital and Health Statistics. Series 11, No. 17, Sep 66.

Findings on the prevalence of rheumatoid arthritis (RA) from the Health Examination Survey for adults, ages 18-79, by age, race, sex, family income, education, family size, place description, marital status, usual activity, occupation, and industry. Description of the steps in diagnosing RA, the data collected, and comparison with other surveys are included. Some 3.6 million adults had RA which was more prevalent in women than in men and about the same for white and Negro adults. There was a lower than expected RA prevalence for persons with more education and for men in the professions and in technical and managerial fields. 16 tables. (AEd)

55. ENTERLINE, P. E.
Social causes of sick absence.
Arch Environ Health (Chicago) 12:467-73, Apr 66.

Sick absence rates in the U.S. correlate remarkably well with other measures of illness and it seems likely that the rates represent true illness and that pseudo-sickness is rare. The U.S. rates are less than half those in most European countries. Differences appear to be due to what workers do about sickness. U.S. employees are more likely than European employees to go to work when not feeling well. Widespread temporary disability benefits are an economic incentive that acts directly to increase sick absence rates, while a labor shortage and a low unemployment rate makes workers less conscientious about work attendance and adds to the labor force many persons who are marginal in terms of health or incentive to work. If the protection of all workers against economic loss during periods of temporary disability should become socially and politically desirable in the U.S. and if full employment is achieved it seems likely that sick absence rates in the U.S. will rise. 6 figures. 11 references. (AEd)

56. ENTERLINE, P. E., LAINHART, W. S.
The relationship between coal mining and chronic nonspecific respiratory disease.
Amer J Public Health 57:484-95, Mar 67.

Data are presented from 2 communities regarding the effects of coal mining on chronic nonspecific respiratory disease. Coal miners were matched with manual workers for education, age, and length of residence in the area. The workers and their wives were invited for a medical examination. An excess of wheezing, dyspnea, and history of pneumonia and pleurisy were found in coal miners. However, coal miners' wives also had an excess of some symptoms compared with the wives of other workers. In one community, coal mining exposure produced some pneumoconiosis but the effect of exposure does not seem great. 5 tables. 10 references. Appendix. (AEd)

57. EPSTEIN, F. H.
Predicting Coronary heart disease.
JAMA 201:795-800, 11 Sep 67.

The probability of development of coronary heart disease can now be defined with considerable accuracy. The probability of the development of clinical disease in middle-aged men with various combinations of risk factors in the upper range is somewhere between one and two chances in five within a 10-year period. When such men are compared with others in the lower ranges of these variables, their excessive risk is of the order of threefold to tenfold, depending on the selection of predisposing factors and the choice of dividing points between "positive" and "negative" test results. Determining the need for preventive measures in a given individual has, therefore, become a matter of rational and quantitative assessment rather than a decision based on an informed and intelligent guess. (AA)

58. ERKELENS, A. D.
The incidence of arteriosclerotic heart disease. A method to estimate morbidity.
Nederl T Gencesk 111:929-32, 20 May 67. (DUT)

No English summary.

59. FOOTE, F. M., EISENBERG, H., HONEYMAN, M. S.
Trends in cancer incidence and survival in Connecticut.
Cancer 19:1573-7, Nov 66.

The 25-year experience of the Connecticut tumor registry is analyzed for trends in incidence and survival. Specific sites covering 70% of the 160,000 reported cases show that incidence of bronchus and lung cancer in men has increased from 9 to 47 per 100,000 and in women from 4 to 7.3. Incidence of cancer of stomach has decreased in men from 40 to 20 per 100,000 and in women from 26 to 10. There has been a marked improvement in the 5-year survival of cases of bronchus and lung, large intestine, rectum, corpus cervix, and prostate cancer. Only a small improvement is shown in survival of breast cancer female patients. 3 tables. 4 figures. 7 references. (AEd)

60. FRAUMENI, J. F. JR., EDERER, F., HANDY, V. H.
Temporal–spatial distribution of childhood leukemia in New York State. Special reference to case clustering by year of birth.
Cancer 19:996-1000, Jul 66.

A temporal-spatial analysis was made of childhood leukemia in towns and cities of upper New York State, 1943-1962, emphasizing the year of birth as the measure of time. A random birth year distribution was noted among children developing leukemia before 5 years of age. This does not provide epidemiologic support for the birth date liability that might be expected to characterize a viral induction of childhood leukemia. Leukemia

under 15 years of age was found to have a significant tendency to cluster according to year of report to the State Cancer Registry but evidence is presented to support the theory that this finding may be an artifact induced by time-space variation in registration. 2 tables. 17 references. (AEd)

888. FRIEDMAN, G. D., KANNEL, W. B., DAWBER, T. R.
Comparison of prevalence, case history and incidence data in assessing the potency of risk factors in coronary heart disease.
Amer J Epidem 83:366-78, Mar 66.

61. FRIEDMAN, G. D., KANNEL, W. B., DAWBER, T. R.
The epidemiology of gallbladder disease: Observations in the Framingham study.
J Chronic Dis 19:273-92, Mar 66.

Observations for 10 years on 5,209 men and women, ages 30-62 in Framingham, Mass. have been used for a prospective investigation of the epidemiology of gallbladder disease. Definite disease was diagnosed in 427 persons on the basis of pathology reports, surgery, X-ray, and hospital admissions. Incidence was about twice as high in women, and increased in both sexes with age. Positively associated with the disease were increase in weight and number of pregnancies. Negatively associated was lower systolic blood pressure in women which may be related to weight. Dietary fat, protein and cholesterol intake, level of physical activity, and other variables were not related. Important environmental causes have not yet been identified, and apparently more attention should be devoted to anatomical and physiological factors. 15 tables. 37 references. (AEd)

62. FROESCHLE, J. E., FEORINO, P. M., GELFAND, H. M.
A continuing surveillance of enterovirus infection in healthy children in six United States Cities. II. Surveillance enterovirus isolates 1960-1963 and comparison with enterovirus isolates from cases of acute central nervous system disease.
Amer J Epidem 83:455-69, May 66.

A routine surveillance of enterovirus for 4 years in a group of children, ages 1-5, of lower socioeconomic status in 6 different areas of the U.S. Also in the same area, an analysis of cases of acute central nervous system (CNS) diseases of suspected viral etiology in patients from whom an enterovirus was isolated. Both sets of data showed: (1) a similar seasonal distribution of isolations and CNS cases, (2) higher rates in males, (3) prevalent types varied annually and between cities. However, the correlation between types of viruses in the surveillance sample and the CNS cases was not consistent. This suggests that infection with some enterovirus types is more likely to result in CNS disease than is infection with other types. 9 tables. 4 figures. 11 references. (AEd)

63. FUCHSBERG, R. R.
Family income in relation to selected health characteristics, U.S.
Vital and Health Statistics. Series 10, No. 2, Jul 63.

Selected statistics from the Health Interview Survey relating to disability days, hospital discharges, and persons injured, by age, sex, and family income. As family income increases, the number of disability days per person declines for each age group. The relationship between income and hospital discharges or income and number of persons injured is not clear cut. Disability days and hospital discharges increase with age while number of persons injured decreases with age. Females have more disability days and hospital discharges than males, largely due to hospitalization during childbearing years. Males have higher rates of injuries than females. 20 tables. (Ed)

64. FUCHSBERG, R.
Illness, disability, and hospitalization among veterans, U.S., July 1957-June 1961.
Vital and Health Statistics. Series 10, No. 14, Mar 65.

Selected data relating to veterans obtained from nationwide household interviews in the Health Interview Survey. Six topics are discussed: (1) population, (2) disability days, (3) chronic illness, long-term impairments, aids, (5) loss of teeth, and (6) discharges from short stay hospitals. 18 tables. (AEd)

65. GALICHEVA, N. A.
On the effect of working and living conditions on the occurrence of myocardial infarct.
Sovet Zdravookhr 25:39-43, 66. (RUS) No English summary.

66. GANDHI, H. S., SIDDHU, C. M.
General health survey in rural health field training center, Kalianpur Kanpur.
India J Med Sci 19:355-67, Jun 65.

A survey was made of 5 villages in Kanpur, India, 1961-62. Visits were made to a sample of 163 families (898 persons). Histories were recorded to study level of health in relation to living environment, causes of mortality and morbidity, and extent and quality of available health care. It is concluded that vulnerability to sickness has not decreased in spite of national programs, such as malaria eradication, marked improvements in controlling epidemics of cholera and gastroenteritis, and complete absence of plague. The infant mortality rate of 289.4 per 1,000 and the morbidity rate of 225.0 per 1,000 strongly indicate the primitive sanitary conditions, unhealthy habits, ignorance and superstition that prevail in this population. 10 tables. 13 references. (Ed)

67. GARRISON, G. E., MCDONOUGH, J. R., JR., HAMES, C. G.
Prevalence of chronic congestive heart failure in the population of Evans County, Georgia.
Amer J Epidem 83:338-44, Mar 66.

Prevalence of chronic congestive heart failure was determined by medical examination of the population of Evans County, Georgia. The rate was 21.2 per 1,000 persons 45-74 years of age, increasing with advancing age. Peak among Negroes may be in the 55-64 age group. In spite of therapeutic care which may be received, data indicate congestive heart failure produces very definite chronic functional impairment. Congestive heart failure was found to be more common in lower than in upper social classes. 5 tables. 11 references. (AEd)

68. GARST, C. C.
Blood Glucose levels in adults, U.S., 1960-1962.
Vital and Health Statistics. Series 11, No. 18, Sep 66.

Findings on mean blood glucose levels from the Health Examination Survey for adults ages 18-79, and comparison with another study. The relationship of blood

glucose level to age, race, sex, family income, education, place description, marital status, usual activity status, occupation, and industry are examined. Higher mean glucose levels are associated with increasing age, women, Negro men; and lower income and education. 15 tables. (AEd)

69. GENTILE, A., SCHEIN, J. D., AND HAASE, K.
Characteristics of persons with impaired hearing, U.S., July 1962-June 1963.
Vital and Health Statistics. Series 10, No. 35, Apr 67.

Data from the Health Interview Survey on binaural loss of hearing, classified in terms of ability to hear and understand speech, by socioeconomic and demographic information, utilization of hearing aids, age at onset of hearing loss, special training and treatment received. Over 4 million persons were reported to have some loss of hearing in both ears and about 22% reported current use of hearing aids. Without use of hearing aid, 856,000 were unable to hear and understand speech, 736,000 were able to hear and understand a few spoken words, and 2.4 million were able to hear and understand most spoken words. 23 tables. (AEd)

855. GERTLER, M. M., WHITER, H.
Individual differences relating to coronary artery disease.
Ann NY Acad Sci 134:1041-5, 28 Feb 66.

70. GIBSON, T. C., WHITE, K. L., KLAINER, L. M.
The prevalence of congestive heart failure in two rural communities.
J Chronic Dis 19:141-52, Feb 66.

Prevalence of congestive heart failure (CHF) as seen by the physician in the community has been evaluated in 2 rural counties by means of a physician survey. Six-month period prevalence rates for all ages were 8.8 and 10.2 per 1,000 white population of Montgomery County, North Carolina, and Caledonia County, Vermont. Age-specific prevalence rates increased with increases in age. Six-month incidence rates for CHF in patients ages 45 and over were 1.9 per 1,000 population in Montgomery County and 2.5 in Caledonia County. It is estimated that by 1970, 1.7 million persons ages 45 and over in the U.S. will have been or will be in CHF including 250,000 new cases for the year. 6 tables. 1 figure. 16 references. (AED)

926. GIFFORD, A. J.
An epidemiological study of cerebrovascular disease.
Amer J Public Health 56:452-61, Mar 66.

71. GLEESON, G. A.
Age patterns in medical care, illness, and disability, U.S., July 1963-June 1965.
Vital and Health Statistics. Series 10, No. 32, Jun 66.

Statistics from the Health Interview Survey on use of medical services and extent of illness and disability in the population, by age. The primary purpose is to describe the health and care status of persons 65 years and older in comparison with that of the younger segments of the population. Demographic factors used in describing the population include family income, living arrangements, and geographic location by region and residence. These factors were selected because they are of particular importance in describing the health and care status of older persons. 35 tables. (A.)

72. GLEESON, G. A.
Impairments due to injury by class and type of accident, U.S., July 1959-June 1961.
Vital and Health Statistics. Series 10, No. 6, Jan 64.

Data collected in the Health Interview Survey show that 38% of all impairments in the civilian, noninstitutional population were due to injury, for a prevalence rate of 60.5 impairments due to injury per 1,000 population. About 1 of every 3 impairments due to injury resulted from an accident while at work and 1 of 6 from a moving motor vehicle accident. 11 tables. (AEd)

73. GLEESON, G. A.
Selected health characteristics by occupation, U.S., July 1961-June 1963.
Vital and Health Statistics. Series 10, No. 21, Aug 65.

Data from the Health Interview Survey on disability, illness, and the use of medical services for persons in the labor force, according to occupation. In general, farmers and farm laborers have a higher rate of chronic illness and associated disability than persons in nonfarm occupations. Farm workers spend less money for health services and are least prepared to meet health expenses by means of hospital and surgical insurance than any other occupational group. 38 tables. (AA)

74. GLORIG, A., ROBERTS, J.
Hearing levels of adults by age and sex, U.S., 1960-1962.
Vital and Health Statistics. Series 11, No. 11, Oct 65.

Hearing levels for adults, ages 18-79, in the U.S. are determined from the Health Examination Survey. Findings are given by age and sex for the right ear, left ear, and better ear at each of the test frequencies, as well as presenting estimates of hearing levels for speech. 12 tables. (AEd)

75. GOLDSMITH, J. R.
Epidemiology of bronchitis and emphysema. I. Factors influencing prevalence and a criterion for testing their interaction.
Med Thorac 22:1-23, 1965.

Lack of general agreement on diagnostic criteria of bronchitis and emphysema makes it difficult to study frequency of these diseases in various populations. What can be studied is frequency of responses to standardized questions and distribution of values of pulmonary function. Possible variables affecting rates of chronic obstructive bronchopulmonary disease include age, sex, cigarette smoking, occupational exposure, climate and season, living standards, air pollution exposure, genetic factors, infectious agents, and other medical factors. In real populations, these variables commonly interact with one another. Examples have been presented, along with a simple test, to determine if the variables have an additive effect. 10 tables. 4 figures. 32 references. (AEd)

76. GORDON, T.
Blood pressure of adults by age and sex, U.S., 1960-1962.
Vital and Health Statistics. Series 11, No. 4, Jun 64.

Findings based on the Health Examination Survey for adults, ages 18-79. Mean systolic pressure in the U.S. population rises with increasing age. Mean diastolic pressure rises until age 45-54 for men and 55-64 for women; at older ages it declines. Under age 45, blood pressures

are higher for men than for women; over age 54, blood pressures are higher for women than for men. A larger arm girth is associated with higher blood pressures. Findings for other population groups are generally similar to those for the U.S., and the blood pressure levels presented here seem comparable with those obtained in the usual clinical situation and are similar to the standards presently in use in the U.S. 17 tables. (AEd)

77. GORDON, T.
Blood pressure of adults by race and area, U.S., 1960-1962.
Vital and Health Statistics. Series 11, No. 5, Jul 64.

Findings based on the Health Examination Survey for adults, ages 18-79. There were slight but statistically significant differences between regions of the U.S. in mean blood pressure level. No differences were demonstrable between place of different population size or between urban and rural areas or between subdivisions of such areas. Blood pressure of Negro adults was greater than that of white adults, by 5.6 mm. hg. systolic and 5.0 mm. hg. diastolic. The comparison was about the same if the South is considered separately. Data suggest that part of the recorded racial difference in blood pressure readings may arise from greater tension on the part of Negro examinees at the time of examination. 5 tables. (AA)

78. GORDON, T.
Glucose tolerance of adults, U.S., 1960-1962.
Vital and Health Statistics. Series 11, No. 2, May 64.

Findings based on the Health Examination Survey for adults, ages 18-79. Approximately 2 million persons in the U.S. have definite evidence of diabetes and know they have it. Blood glucose levels after challenge and the prevalence of findings of urine glucose after challenge increase with age. Blood glucose levels after challenge are higher for women than for men; the prevalence of urine glucose findings is lower for women than for men. The likelihood of urine glucose being manifested at a given level of blood glucose is less at older ages than at younger and less for women than for men. The number of persons with what is generally considered evidence of "unknown diabetes" is substantially greater than the number of known diabetics. 4 tables. (AA)

79. GORDON, T.
Heart disease in adults, U.S., 1960-1962.
Vital and Health Statistics. Series 11, No. 6, Sep 64.

Findings based on the Health Examination Survey for adults, ages 18-79. About 14 million U.S. adults have definite heart disease (more women than men) and nearly that many have suspect heart disease (more men than women). The most common form is hypertensive heart disease which is more common in Negroes than in whites. Prevalence of definite heart disease rose from less than 2% of persons ages 18-24 to 39% of men and 46% of women ages 75-79. A large number with heart disease had more than one manifestation of the disease and a large number without diagnosed heart disease had possibly serious cardiac findings. 5 tables. (AEd)

80. GORDON, T., DEVINE, B.
Findings on the serologic test for syphilis in adults, U.S., 1960-1962.
Vital and Health Statistics. Series 11, No. 9, Jun 65.

Findings on the serologic test for syphilis done during the Health Examination Survey for adults, ages 18-79. Blood specimens were taken, and the Kolmer Reiter Protein and Venereal Disease Research Laboratory methods were used to determine serologic evidence of syphilis. Description of the serologic tests for syphilis, the techniques used, the data collected, and comparison with other surveys are included. The relationship of findings to age, sex, race, family income, education, place, marital status, and occupation are examined. The prevalence of positive STS findings was higher in: men than women, white and Negro; the Negro population than the white, both sexes, every age group; in the West for all race-sex groups. 10 tables. (AEd)

81. GORDON, T., DEVINE, B.
Hypertension and hypertensive heart disease in adults, U.S., 1960-1962.
Vital and Health Statistics. Series 11, No. 13, May 66.

Findings on the prevalence of hypertension and hypertensive heart disease (HHD) from the Health Examination Survey for adults, ages 18-79, and comparison with other surveys. The relationship of the prevalence of hypertension and HHD to age, race, sex, family income, education, residence, marital status, usual activity status, occupation, and industry are examined. Definite hypertension and HHD were more prevalent in men and in Negroes. Prevalence also varied by residence and occupation. There was no strong pattern of prevalence associated with income or education. 20 tables. (AEd)

82. GORDON, T., GARST, C. C.
Coronary heart disease in adults, U.S., 1960-1962.
Vital and Health Statistics. Series 11, No. 10, Sep 65.

Findings on the prevalence of coronary heart disease (CHD) from the Health Examination Survey for adults, ages 18-79. Description of the diagnosing, data collection, and comparison with results in other surveys are included. The relationship of the prevalence of CHD to age, race, sex, family income, education, place description, marital status, usual activity status, occupation, and industry are examined. CHD was more prevalent in men than in women, both white and Negro populations; about the same for white and Negro adults; lower than expected for persons with family incomes over $10,000; and lower than expected for farmers. 17 tables. (AEd)

83. GORDON, T., WATERHOUSE, A. M.
Hypertension and hypertensive heart disease.
J Chronic Dis 19:1089-1100, Oct 66.

The Health Examination Survey, National Center for Health Statistics, estimated 17.0 million noninstitutionalized American adults, ages 18-79, to have definite hypertensive heart disease. Some 15% were estimated to have definite hypertension; 9.5% definite hypertensive heart disease, (i.e. of U.S. noninstitutional population, ages 18-79). Problems of interpreting x-ray and ECG findings, and problems of distinguishing between benign and malignant hypertension are discussed. 5 tables. 3 figures. 17 references. (AEd)

84. GORWITZ, K., BAHN, A. K., KLEE, G.
Release and return rates for patients in state mental hospitals of Maryland.
Pub Health Rep 81:1095-1108, Dec 66.

Patterns of retention, release, and rehospitalization were studied for patients admitted to 3 Maryland State mental hospitals, July 1961-December 1962. Patients ages 25-54

years with diagnoses of alcoholism, psychoses, or personality disorders were studied by sex, race, marital status, age, education, residence, type of admission, and number of previous admissions. Over 80% of the patients were released within 1 year of admission. 18 months after release, 45% of psychotics, 45% of alcoholics and 32% of patients with personality disorders had been rehospitalized. 9 tables. 2 figures. 19 references. (AEd)

927. GRABOVSKII, P. P.
Complex morbidity indexes of the population.
Vrach Delo 7:124-7, Jul 65. (RUS)

85. GRAHAM, S., LEVIN, M. L., LILIENFELD, A. M.
Preconception, intrauterine, and postnatal irradiation as related to leukemia.
Nat Cancer Inst Monogr 19:347-71, Jan 66.

319 children with leukemia from upstate New York and the metropolitan and rural areas of Baltimore and Minneapolis-St. Paul were compared with controls drawn from a random sample of children from these areas. The main difference found between the groups was in age, the case series being younger than the controls. Children of mothers who had had miscarriages or stillbirths had higher leukemia risks. Children of mothers who had any form of radiation experience had a relative risk of from 1.6 to 2.2%. Radiation in last two trimesters of pregnancy carried higher risks. These results are similar to previous findings. 21 tables. 20 references. Appendix. (AEd)

86. GREGORY, I.
Retrospective data concerning childhood loss of a parent. II. Category of parental loss by decade of birth, diagnosis, and MMPI.
Arch Gen Psychiat (Chicago) 15:362-7, Oct 66.

Data are reviewed for 1,000 native-born white males and females admitted to an adult psychiatric inpatient unit. After standardizing for decade of birth and sex, there were minimal residual associations between specific categories of parental loss and specific categories of psychiatric diagnosis or of Minnesota Multiphasic Personality Inventory high points. In contrast with studies concerning deliquency or persistent antisocial behavior, the results of the present study do not suggest that any form of permanent parental loss during childhood is associated with a vulnerability to depression or to any specific category of neurosis or psychosis in adult life. 5 tables. 23 references. (AEd)

87. GURALNICK, L.
Selected family characteristics and health measures reported in the health interview survey.
Vital and Health Statistics. Series 3, No. 7, Jan 67.

Standardized morbidity ratios are presented, based on data collected in the Health Interview Survey, 1961-1963, for several measures of illness in groups characterized by family size, family income, family type, and adjusted for age, sex, and farm-nonfarm residence. 4 tables. (AEd)

88. HAMMOND, E. C., GARFINKEL, L.
The influence of Health on smoking habits.
Nat Cancer Inst Monogr 19:269-85, Jan 66.

Analysis of smoking habits in relation to health of men enrolled in a prospective study in 1959-60 by the American Cancer Society and traced for approximately 4 years. It was found that ill health often results in a smoker either giving up the habit or reducing his daily consumption. This has an influence on the later death rates of men designated as "ex-smokers" and men designated as "current smokers" of various amounts of tobacco. There is some tendency for cigarette smokers in poor health to switch to brands containing a low amount of nicotine and tar. It will be difficult to determine whether making such a switch is beneficial from the standpoint of reducing death rates. It is suggested that difficulties of this type may occur in epidemiological studies of various other factors (e.g. diet, exercise, and sleep) which may have an effect on health and may also be influenced by state of health. 12 tables. 6 references. (AEd)

89. HAMMOND, E. C., STOCKS, A.
Smoking habits and health in Iowa and neighboring states.
J Iowa Med Soc 54:563-7, Oct 64.

Findings are presented of the Iowa segment of the American Cancer Society's prospective study aimed at identifying factors related to the occurrence of cancer and other diseases. In 1959-60, 40,048 men and women from 23 counties of Iowa enrolled, and are traced once a year. For 16,403 men, ages 40-89, determinations were made of incidence of physical complaints reported by cigarette smokers and non-smokers, of hospitalizations, and of deaths. The epidemiologic data, together with evidence from clinical, histologic and experimental studies, indicate that cigarette smoking is a serious hazard to health. 4 tables. 1 figure. References. (Ed)

90. HANKIEWICZ, J., MACHALSKI, M.
Influence of meteorological factors on the occurrence of hemorrhage and perforation in patients with peptic ulcer.
Pol Arch Med Wewnet. 36:769-75, 66.

The effect of air temperature, atmospheric pressure, and wind velocity, degree of cloudiness of the sky, and relative humidity of the air on the occurrence of hemorrhage (448 cases) and perforation (230 cases) was studied in patients with peptic ulcer. It was found that the said complications were relatively more common in the autumn months. However, no distinct precipitating effect of any of the above listed meteorological factors could be demonstrated. 6 tables. 1 figure. 6 references. (AA)

91. HARE, E. H., SHAW, G. K.
A study in family health. I. Health in relation to family size.
Brit J Psychiat 111:461-6, Jun 65.

The health of parents and children in a random sample of 499 urban families was determined by household interviews with the parents and from records kept by general practitioners. The rates for various indices of physical and mental ill-health are examined by family size. For mothers, and to a less extent for fathers, rates of physical and mental ill-health increased with family size probably reflecting the increased strain imposed on them by caring for a larger number of children. 3 tables. 11 references. (AEd)

92. HARE, E. H., SHAW, G. K.
A study in family health. II. A comparison of the health of fathers, mothers and children.
Brit J Psychiat 111:467-71, Jun 65.

Parents and children in a random sample of 499 families have been compared for health and personality factors. Information was obtained from household interviews and from general practitioner records. Poor health in one parent was associated with poor health in the other parent and in the children. There was a strong association between parents for neuroticism but none for extraversion. Attention is drawn to the difficulty in epidemiological studies of distinguishing poor health from a low threshold of complaint, and also to the possible importance of distinguishing neurosis from neuroticism. The results are discussed in terms of the hypotheses of assortative mating and of interaction between spouses. 5 tables. 10 references. (AA)

93. HASHIMOTO, M., HASHIMOTO, N., ISHIHARA, M.
Characteristics of myocardial infarct in the Japanese, with special reference to a comparison with Europeans and Americans.
Jap J Clin Med 23:1694-1702, Sep 65. (JAP)

No English summary.

94. HILLMAN, R. W., REUTER, M., DEMAREST, E.
Smoking and illness experience of student nurses.
Pub Health Rep 82:633-8, Jul 67.

The illness experience of 84 student nurses who smoked was observed to be significantly less favorable than that of 185 nonsmoking personnel. The excess morbidity incurred by the smoking group was noted in respect to nonrespiratory as well as respiratory conditions. Smokers tended to be of greater stature and of relatively lighter weight than nonsmokers. They also included a greater proportion of students whose mental health status was identified as questionable. Infants subsequently born to smokers weigh less at birth than those born to the nonsmokers. This difference was especially conspicious among female infants and was evidenced even after adjustments for the generally lighter birth weights also recorded for the mothers who smoked. Longitudinal studies are required to delineate the precise role of constitutional factors as well as the early and residual effects of smoking on health status. 4 tables. 36 references. (AA)

95. HINKLE, L. E., JR.
The use of a large industrial population to study the effects of social and behavioral factors on coronary heart disease.
Amer J Public Health 56:1470-5, Sep 66.

Health data of employees in a nationwide industry are utilized to investigate coronary heart disease. The population is highly homogeneous and covered by a benefit program. 5-year epidemiological data are now being analyzed. 4 tables. 6 references. (AEd)

96. HINKLE, L. E. JR., BENJAMIN, B., CHRISTENSON, W. N.
Coronary heart disease. 30-year experience of 1,160 men.
Arch Environ Health (Chicago) 13:312-21, Sep 66.

An age cohort of 1,160 men, ages 30 to 60, from 1 unit of an industry (Western Hemisphere) has been studied over a period of 30 years. Deaths from coronary heart disease among the cohorts and the prevalence of manifestations of coronary heart disease among the survivors at age 60 have been examined. Death rates among those dismissed, resigned, and retired were comparable to death rates among the men who remained on the payroll. The 30-year coronary death rate for the whole cohort was 5.6%. Among the survivors still on the payroll at age 60, 14.6% exhibited definite evidence of coronary heart disease. The rates are comparable to those of American men of the same age. 11 tables, 30 references. (AEd)

97. HOFFMANN, C. H.
Disability among persons in the labor force by employment status, U.S., July 1961-June 1962.
Vital and Health Statistics. Series 10, No. 7. Mar 64.

Data collected in the Health Interview Survey indicate that persons in the labor force averaged 12.3 days on which they had to reduce their usual activities. As family income increased, restricted-activity days decreased, but the decrease in the rate was sharper among the employed than among the unemployed. The percent of persons with one or more chronic conditions was about the same for the employed as for the unemployed; however, 17% of unemployed group had activity limitation compared with 10.5% of the employed. High rates of chronic illness and limitations were seen among private household workers, and low rates for clerical and salesworkers. 18 tables. (AEd)

98. HOLLAND, W. W., REID, D. D.
The urban factor in chronic bronchitis.
Lancet 1:445-8, 27 Feb 65.

A survey of prevalence of respiratory symptoms and sputum production, and of lung-function levels, was made in Post Office employees doing similar jobs either in central London or in and around the three towns of Norwich, Peterborough, and Gloucester. These areas differ notably in the reported death rates from chronic bronchitis. Particularly over age 50, London men had more and severer respiratory symptoms, produced more sputum, and had significantly lower lung-function test results. Personal smoking habits were closely related to frequency and severity of respiratory disturbance; but urban-rural differences in smoking habits could not explain the greater prevalence in London of symptoms, phlegm production, and poor lung-function. Of the factors reviewed, differences in local levels of air pollution appeared to be the likeliest cause of the difference in respiratory morbidity between men working in central London and those in the three rural areas. 4 tables. 3 figures. References. (AEd)

99. HORVATH, A., PAPP, C., OLOSZ, E.
Statistical findings on excess weight. Correlations between body weight and frequency of arterial hypertension.
Stud Cercet Endocr 16:285-91, 65. (RUM) No English summary.

100. HUHTI, E.
Prevalence of respiratory symptoms, chronic bronchitis and pulmonary emphysema in a Finnish rural population. Field survey of age group 40-64 in the Harjavalta area.
Acta Tuberc Scand Suppl. 61:3-111, 65.

In the Harjavalta area, 96% of 761 men and 925 women, ages 40-64, were traced. Data from questionnaires, chest X-rays, and lung function tests were used.

Persons with tuberculosis or other respiratory diseases were excluded. Smoking, particularly cigarettes, is the most important factor in the occurrence of respiratory symptoms, especially cough and phlegm, and of chronic nonspecific lung disease. The part played by sex and age in respiratory symptoms may be questioned. Cigarette smoking seems to reduce forced expiratory volume (FEV) and peak expiratory flow (PEF) values in men but not in women. This would seem to suggest that women smokers constitute a group which is selected in one way or another. Smoking does not fully account for the different FEV and PEF values when comparing the Harjavalta survey with certain series studied abroad. Possible international differences in results of these function tests seem to merit further investigation. It would seem that the prognostic value of chronic bronchitis is not the same in men and in women. Prospective studies might provide more thorough answers to problems associated with chronic nonspecific lung disease. 19 tables. 10 figures. 206 references. (AEd)

101. HURLEY, P. L., CONWELL, M.
Public mental hospital release rates in five states, 1954 and 1960.
Publ Health Rep 82:49-60, Jan 67.

Two groups of patients first admitted to State and county mental hospitals in 5 States in 1954 and 1960 were studied. First release rates of cohorts of patients with schizophrenia and diseases of the senium were compared. The "first significant release" method of analysis was used. It appears that members of the 1960 cohort with schizophrenia or diseases of the senium were released earlier and at a higher rate than members of the 1954 cohort. Since the years considered represent a time period before and after the widespread introduction of new therapeutic agents and the institution of more intensive treatment modalities, it is believed the data reflect the influence of these two factors. 2 tables. 6 figures. 4 references. (AEd)

102. HUSZAR, T.
Statistical study of morbidity and mortality through mellitus diabetes in the Socialist Republic of Romania.
Sante Publique (Bucur) 8:433-9, 1965.

In 1963, 2,759 new patients with diabetes (14.6/100,000) and 12,088 both new and old patients in Romania were traced. Mortality is lower in Romania than in other European countries. It is higher in urban than rural areas, and higher in Banat and Transylvania in comparison with the rest of Romania. Prevalence among women is 10% higher and mortality 20% higher than among men. Three-fourths of diabetics are over age 50 and deaths usually occur over age 60. Records show 3 times more cases on record than those traced by mass medical examinations. Considering demographic phenomena and the state of public health in Romania, an increase in diabetes may be expected in the next few decades. 6 figures. 5 references. (AEd)

103. IUTAKA, S.
Social status and illness in urban Brazil.
Milbank Mem Fund Quart 44:Suppl:97-110, Apr. 66.

Report of one of the first attempts to survey health and social status in Brazil, by household response to a questionnaire. Problems including illiteracy are discussed. 200 adults in a district were studied for 1 month. Infective and parasitic disease were the major causes of morbidity. Morbidity incidence, type of care obtained and medical expenses are given by social status. 6 tables. 9 references. (Ed)

104. JACKSON, W. P., GOLDIN, C., MARINE, N.
Diabetics–inter-racial comparisons. II. Retinopathy and heart disease.
S Afr Med J 40:206-8, Mar 12, 66.

The retina of 706 patients attending the Diabetes Clinic in Cape Town (South Africa) were examined; 35% had retinopathy. The percent rose with duration of diabetes and with age. It was higher among Cape colored females but otherwise little racial difference was noted. Frequency of diabetes among the Bantu was as high as in other racial groups, provided duration of diabetes was taken into account. Bantu diabetics had the lowest prevalence of hypertension and little or no ischemic heart disease. Moslems showed the highest frequency of hypertension and ischemic heart disease. 4 tables. 6 references. (AEd)

105. JACOBZINER, H.
Causes, control, and prevention of accidental poisonings.
Pub Health Rep 81:31-41, Jan 66.

In 1955, there were 2,910 accidental poisoning cases in N.Y. City, and in 1963, 19,485. (Perhaps a better system of reporting accounted for some of the increase). There are several types of accidental poisoning: internal and external medications taken by mistake, household poisons, pesticides, and lead. Most poisonings were among persons under age 20, with largest percent around ages 2-5. Some children are accident prone, more boys than girls get poisoned, perhaps because of curiosity. Most accidental poisonings occurred in the afternoon or early evening, when an adult was in attendance but momentarily distracted. Prevention will require participation of an entire team of health workers. , 3 tables. 3 figures. 13 references. (Ed)

106. JANICKI, K., GURDA, M.
Considerations of seasonal variation in leukemias.
Acta Med Pol 6:359-78, 65.

Seasonal variation of leukemia was studied in 1,806 hospitalized cases, 1951-62. Analysis was carried out by distributions of hospitalization rates according to months and quarters of the year, by sex, age, and type of leukemia, and on the combined material over a period of years, and for each year separately. It was concluded that the studied material is uncharacteristic and irregular and does not support the data in the literature suggesting seasonal variation in incidence of leukemia. 10 tables. 1 figure. 28 references. (AEd)

107. JOHNSON, B. C., EPSTEIN, F. H.
Absence of peripheral pulse in relation to other arterial disease in a community study.
Amer J Public Health 56:1482-92, Sep 66.

Data are presented from the Tecumseh Community Health Study in which 88% of the community was examined during 1959-1960 as the first phase of a longitudinal health study. Variables positively related to coronary heart disease (CHD) such as blood pressure, relative weight, and blood sugar were also found to be related to absence of pedal pulses. A similar tendency was noted

for serum uric acid levels. Serum cholesterol was not definitely relatable in prevalence of either CHD or absent pulses. Since over half the men and 1/3 the women over age 60 who had absent pulses also had CHD, diabetes, or both, it is suggested that evaluation of peripheral arteries may ultimately provide in itself a risk-factor variable of prognostic significance in coronary and cerebral arterial disease. 3 tables. 29 references. (AEd)

108. JOHNSON, E. S., KELLY, J. E., VAN KIRK, L. E.
Selected dental findings in adults by age, race, and sex, U.S., 1960-1962.
Vital and Health Statistics. Series 11, No. 7, Reprinted Nov 65.

Findings based on the Health Examination Survey for adults, ages 18-79. Substantial differences in dental status were found between white and Negro adults. White adults were twice as likely as Negro to have lost all their natural teeth, either in one or both jaws. The average number of decayed, missing, and filled teeth in Negroes was only about 2/3 of the number found in white persons, 14.5 and 21.2 teeth, respectively. On the other hand, destructive periodontal disease was half again as prevalent among Negro as among white adults. Comparisons are made by age and sex. 10 tables. (AEd)

109. JOHNSON, K. G., YANO, K., KATO, H.
Cerebral vascular disease in Hiroshima, Japan.
J Chron Dis 20:545-59, Jul 67.

Cerebral vascular disease (CVD) in Hiroshima, Japan, is described for 1958-1964. Incidence of CVD in males over age 30 was 7.4/1,000/year and in females 4.1, approximately twice the incidence of CHD. The frequency of cerebral thrombosis was twice that of cerebral hemorrhage. These findings on incidence and type of CVD are in accord with the known high incidence of this disease in Japan but do not suggest that any disease other than atherosclerosis of the cerebral arteries is responsible. Hypertension, cardiomegaly (ascertained by ECG or chest film), and proteinuria were important factors in the risk of subsequent CVD. The association between hypertension and CVD, and the evidence that CVD is declining in Japan, the U.S. and Europe during a period of widespread use of antihypertensive agents, encourage further study. 4 tables. 7 figures. 30 references. (AA)

110. KAHN, H. A., DAWBER, T. R.
The development of coronary heart disease in relation to sequential biennial measures of cholesterol in the Framingham Study.
J Chron Dis 19:611-20, May 66.

A method for using serial cholesterol measurements obtained in the Framingham Study through March 1963 and relating these to the risk of developing coronary heart disease (CHD) is described. Within the range of values observed, measures of cholesterol slope or variability are not strongly related to the risk of developing CHD. For diagnostic categories of CHD other than CHD death, no function of the cholesterol values studied could appreciably improve the discriminatory power of the original value among men although there was moderate improvement with later cholesterol levels in risk discrimination among women. 4 tables. 6 references. (AEd)

111. KANNEL, W. B.
Habitual level of physical activity and risk of coronary heart disease: The Framingham Study.
Canad Med Ass J 96:811-2, 25 Mar 67.

In the Framingham Study, the level of physical activity was crudely assessed in 5,127 men and women from a 24-hour history of activity and from objective physiologic measurements. In this sedentary population, the most sedentary were more liable to fatal heart attacks but not to angina pectoris. According to 3 objective indicators of physical activity—weight gain, vital capacity, and resting pulse rate—there was a 5-fold greater mortality from coronary heart disease among the most sedentary than among the most active. Physically active middle-aged persons with advanced coronary atherosclerosis develop adequate collateral circulation while their sedentary cohorts do not. 3 figures. 23 references. (Ed)

112. KANNEL, W. B., DAWBER, T. R., MCNAMARA, P. M.
Detection of the coronary-prone adult: The Framingham Study.
J Iowa Med Soc 56:26-34, Jan 66.

The epidemiologic approach to the study of coronary heart disease (CHD) has been employed at Framingham since 1949, through biennial examinations of 5,127 men and women, 30-60 years of age, for initial development of CHD. Assessment is made of some factors of susceptibility related to age, sex, lipid and blood pressure levels, and genetic factors. Data are included to show incidence of infarction and sudden death, and risk of CHD. CHD is not simply the inevitable consequence of advancing age and inborn metabolic errors determined at the moment of conception. Many observations point to potent environmental influences, and there is evidence that habits and way of life are related to the incidence of CHD. Subjects who were predisposed by hypertension and an elevated serum cholesterol level and who smoked heavily developed a marked excess of 'heart attacks.'. 15 figures. 4 references. (Ed)

113. KARDOS, G., VARGHA, M.
Data on the problems of alcoholism from the viewpoint of social psychology and epidemiology. (Analysis of 4,241 cases, comparison of 2 periods: 1953-1955 and 1963-1965.)
Orv Hetil 108:743-7, 16 Apr 67 (HUN)

Analysis of a series of 4,241 subjects during two 2-year periods, 1953-55 and 1963-65, in Hungary showed a shift of alcoholism toward younger age groups. Nearly 2/3 of alcoholics admitted to hospitals are under age 40. Alcoholism showed a decreasing tendency among subjects with university or secondary school education and an increasing tendency among affluent young people with little schooling. About 3/4 of alcoholics are married. Frequency of alcoholism is about the same in urban and rural populations. There is a high frequency of recidivism among former alcoholics. (From Excerpta Medica, Sec 17, Vol 13, No 11, Nov 67.) (Ed)

361. KATSUKI, S., HIROTA, Y.
Recent trends in incidence of cerebral hemorrhage and infarction in Japan. A report based on death rate, autopsy case and prospective study on cerebrovascular disease.
Jap Heart J 7:26-34, Jan 66.

114. KATSUKI, S., OMAE, T., HIROTA, Y.
Epidemiological and clinicopathological studies on cerebrovascular disease.
Kyushu J Med Sci 15:127-49, Dec 64.

An epidemiological study was begun in 1961 with cross-sectional examinations for 1,841 men and women, ages over 40 in the town of Hisayama in Japan. Among those followed for a 2-year period, cerebrovascular disease (CVD) developed in 28 cases. Annual incidence of CVD was estimated at 215 per 100,000. Precipitating factors appeared to be: age over 60; heredity; neurological signs such as headache, dizziness, and numbness of the extremities; abnormal ECG such as high amplitude R in the left leads or ST depression; and retinopathy more than K W 1. Serum total cholesterol level did not affect the evolution of CVD. Various approaches for the understanding of CVD were described. 16 tables. 9 figures. 40 references. (AEd)

115. KELLGREN, J. H.
Epidemiology of rheumatoid arthritis.
Arthritis Rheum 9:658-74, Oct 66.

Results of studies in different parts of the world are cited and discussed. The report includes estimates of prevalence of probable and definite rheumatoid arthritis in 9 countries, by sex, comparisons of clinical criteria, discussion of occurrence in different parts of the body, and etiology. Rheumatoid arthritis occurs throughout the world, is usually more prevalent among females, and is probably a disease of multiple etiology. The degree of familial aggregations of this disease seems to depend on the criteria of diagnosis. 10 tables. 10 figures. 51 references. (Ed)

116. KELLY, J. E., VAN KIRK, L. E.
Periodontal disease in adults, U.S., 1960-1962.
Vital and Health Statistics. Series 11, No. 12, Nov 65.

National estimates of prevalence and severity of periodontal disease by age, sex, race, family income, education, and place of residence from the Health Examination Survey for adults, ages 18-79. The prevalence of destructive periodontal disease increased sharply with advancing age. Proportionately more men than women had destructive disease. The Periodontal Index varied inversely with both family income and education. Much of the higher occurrence of periodontal disease in Negroes than whites was accounted for by differences in income and to an even greater extent by differences in education. The prevalence and severity of periodontal disease by specified place of residence did not vary significantly. 12 tables. (AEd)

117. KELLY, J. E., VAN KIRK, L. E., GARST, C. C.
Decayed, missing, and filled teeth in adults, U.S., 1960-1962.
Vital and Health Statistics. Series 11, No. 23 Feb 67.

National estimates of the number of decayed, missing, and filled (DMF) teeth in the population of the U.S., ages 18-79, from the Health Examination Survey. The number of DMF teeth increased rapidly and steadily with advancing age. Women had slightly more DMF teeth than men of the same age and race, and white adults had substantially more than Negro adults of the same sex. Higher counts of DMF were more frequent among people with greater income or education and among residents of more densely inhabited places. Those living in the Northeast had significantly high counts, and those in the South significantly low ones. 24 tables. (AEd)

118. KELLY, J. E., VAN KIRK, L. E., GARST, C. C.
Oral hygiene in adults, U.S., 1960-1962.
Vital and Health Statistics. Series 11, No. 16, Jun 66.

National estimates from the Health Examination Survey for adults, ages 18-79, of oral hygiene levels by age, sex, race, and other demographic characteristics. Oral hygiene was better for women, white persons, higher income and higher education groups. It worsened with advancing age because of a gradual increase in the amount of calculus. Variations in periodontal disease by sex and race were secondary to underlying differences in oral hygiene. Among persons with equivalent oral hygiene, definite but greatly reduced trends persited in the amount of periodontal disease by both income and education. Age, however, persisted throughout as a strong and separate factor in the prevalence and severity of periodontal disease. 12 tables. (AEd)

119. KELLY, J. E., VAN KIRK, L. E., GARST, C.
Total loss of teeth in adults, U.S., 1960-1962.
Vital and Health Statistics. Series 11, No. 27, Oct 67.

National estimates from the Health Examination Survey of the number of adults, ages 18-79, who have lost all of their permanent teeth. Prevalence is described by age, sex, race, etc. In addition, estimates are included of the number who have satisfactory artificial teeth and of the number with seriously failing natural teeth. 18 out of every 100 people had lost all of their permanent teeth. The prevalence of edentulous persons increased with age and decreased with rising levels of education and family income. Among people with the same income or education, relatively more women than men were edentulous and relatively more white people than Negro. 11 tables. (AEd)

120. KEYS, A.
The individual risk of coronary heart disease.
Ann NY Acad Sci 134:1046-56, 28 Feb 66.

Individual risk of developing coronary disease or dying from such disease is related to age, sex, country of residence, population density, and occupation. Older men living in cities of U.S. and Finland are at one end of extreme risk; young rural women in Japan, Italy, and The Netherlands at the other. Risk is strongly related to serum cholesterol in all populations and to cigarette smoking in some. Risk is increased by arterial hypertension. Overweight problems do not appear to be important factors except as related to high cholesterol level or hypertension. From the epidemiological evidence alone, it is hard to identify true causal relationships because of the complexity of interrelationships. 11 tables. 3 figures. 15 references. (AEd)

935. KHEIFETS, L. B., LIVSHITS, V. M.
On the use of certain methods for statistical assessment of a unit morbidity rate.
ZH Mikrobiol 42:86-91, Sep 65. (RUS)

121. KIMURA, T., OTA, M.
Epidemiologic study of hypertension. Comparative results of hypertensive surveys in two areas in Northern Japan.
Amer J Clin Nutr 17:381-90, Dec 65.

Causes of regional differences in mortality from cerebral vascular lesions were studied in a random sample of residents from 2 villages, A and B in Northern Honshu,

Japan. Death rates from this disease were 272.6 per 100,000 in A compared with 104.0 in B, 1958-62. Among males ages 50-59, 37% of A had blood pressure levels of 160 (systolic) and/or 95 (diastolic) mm. HG or more compared with 23% in B. Climate and serum lipid levels were not significantly different between A and B. The main cause of the greater incidence of hypertension and mortality from apoplexy in A is attributed to the larger salt intake associated with low intakes of Vitamin A, riboflavin, ascorbic acid, and pantothenic acid in A. 7 tables. 1 figure. 43 references. (AEd)

363. KING, H., BAILAR, J. C.
Epidemiology of urinary bladder cancer. A review of selected literature.
J Chron Dis 19:735-69, Jul 66.

122. KINZIE, J. D., KINZIE, K., TYAS, J.
A comparative health survey among two groups of Malayan aborigines.
Med J Malaya 21:135-9, Dec 66.

A comparative study including physical examination and laboratory tests of two groups of aborigines. Prevalence rates are given for otitis media, dental caries, palpable spleen, malaria, parasitemia, hypertension, clinical elephantiasis, infant and child mortality. Racial dissimilarities in prevalence are discussed. 5 tables. 5 references. (Ed)

364. KLAINER, L. M., GIBSON, T. C., WHITE, K. L.
The epidemiology of cardiac failure.
J Chron Dis 18:797-814, Aug 65.

123. KLARMAN, H. E.
Socioeconomic impact of heart disease.
Nat Conf Cardiov Dis 2:693-707, 64.

Measurement of economic costs attributable to the cardiovascular diseases or the benefits that would accrue if these diseases were eliminated or controlled. Discusses the potential increase in the national income or GNP that could be achieved through the elimination of the disease, and the volume of health resources that could be diverted to other uses through a saving in medical care expenditures (direct cost). The measure of economic benefits should include the value of averting such intangible costs as grief, pain, and suffering, e.g. orphanhood. The calculated present value of all economic costs attributable to cardiovascular diseases in 1962 is $30.7 billion. To measure the benefit of the hypothetical elimination of the cardiovascular diseases, precise knowledge is required of the effects of specific services on the health of the population and of the expected cost of producing and purchasing such services. 11 tables. 32 references. (AEd)

124. KLIMT, C. R., MEINERT, C. L., HO, I. P.
Study of familial patterns of reported diabetes. Evaluation of questionnaire data.
Diabetes 16:40-41, Jan 67.

A family history survey questionnaire was given to 31,046 students entering the University of Minnesota between 1955-56 and 1959-60. Among the questions asked were the diabetes status of the student and of each of his parents. The prevalence of diabetes appeared to be positively correlated with the number of diabetic parents (i.e. 0, 1, 2). Observed prevalence was 3 times higher among those with 1 parent affected than among those with neither parent affected (even by parental age). Mortality rates did not appear to be correlated with the number of diabetic parents. Sources of error in this and in retrospective questionnaire-based studies in general are analyzed and discussed. 16 tables. 21 references. (AEd)

125. KLONOFF, H., ROBINSON, G. C.
Epidemiology of head injuries in children. A pilot study.
Canad Med Ass J 96:1308-11, 13 May 67.

A retrospective study of children, ages 0-15, with head injuries and head lacerations, in various emergency clinics, Canada, England, U.S., and Sweden. Children under age 7 are more vulnerable. Boys make twice as many visits as girls. The seasons that permit outdoor play show more visits. The highest number of visits were over weekends, highest frequency on Sundays, and afternoon and evening hours. Radiographs were made in 84% of the children with head injuries and 7% of the children with head lacerations. 1 table. 19 references. (AEd)

126. KNUPFER, G.
Some methodological problems in the epidemiology of alcoholic beverage usage: definition of amount of intake.
Amer J Pub Health 56:237-42, Feb 66.

Discussion of alcohol consumption patterns. Methods for measuring intake are studied. Frequency versus quantity is discussed. The "daily light drinkers" and the "Weekly heavy drinkers" are described. Data are presented from the California Drinking Practices Study. 2 tables. 4 references. (Ed)

127. KNUPFER, G.
V. The epidemiology of problem drinking.
Amer J Public Health 57:973-91, Jun 67.

Conceptual and operational difficulties involved in doing a morbidity survey of problem drinking are discussed, and preliminary results of a survey are given. 10 indices are used to define a problem drinker. The indices cover 3 areas: social consequences (e.g. trouble with job, police, spouse), dependence (e.g. self-image, addiction), and excessive intake (e.g., binges, frequent high intake). The survey was a 3½ hour interview of 1,000 people in San Francisco. Prevalence rates for each of the indices are compared by sex, socioeconomic status, marital status, and ethnic background. Comparisons are made with results of other surveys. 5 tables. 2 figures. 12 references. (Ed)

128. KONISHI, H.
Tuberculosis prevalence survey in Japan in 1964.
Kekkaku 40:445-53, Oct 65.

A nationwide survey of TB prevalence in Japan, 1963 and a followup study in 1964 in one-third of the 1963 districts revealed a gradual increase in rate. The data were compared with surveys of 1958-59. A slight decrease among older age groups was seen. In 1963, only 46% of cases received actual treatment but this improved in the later survey. Of the cases found in 1963, 17% improved, 8% grew worse, and 0.7% died by 1964. 7 tables. 8 figures. (AEd)

129. KRIVINKA, R., COUFAL, K., POLANSKY, F.
Development of the epidemiology of tuberculosis in Czechoslovakia after the second World War. (CZ)
Cesk Zdrav 14:79-88, Feb 66.

Information about TB in Czechoslovakia first became adequate in 1948-49, but only since 1960 has an active

case register been in use. Between 1960 and 1964, the incidence of new cases has been declining in young people but increasing in older age groups. Mortality has markedly declined. However, at least another 20 years will be required to reduce TB infection in Czechoslovakia to insignificant proportions. 10 graphs. 8 references. (Ed)

130. KUROKAWA, T., KUBO, A., FUCHIGAMI, A.
The annual incidence and sex and age distributions of early stomach cancer.
Jap J Cancer Clin 11:804-11, Nov 65. (JAP)

No English summary.

131. KURTZKE, J. F.
The distribution of multiple sclerosis and other diseases.
Acta Neurol Scand 42:221-43, 66.

In order to explain the existence of "foci" of multiple sclerosis (MS) in Norway, Sweden, Denmark and Switzerland, correlations of the distributions of MS with those of other diseases were determined. Diseases showing no correlation with MS were: pneumonia, meningitis, cerebral hemorrhage, carcinoma, epilepsy, brain tumors, amyotrophic lateral sclerosis, and poliomyelitis (except borderline cases in Switzerland). Diseases that did show correlation with MS were: scarlatina, mumps, diphtheria, pertussis. However, there is sufficient lack of uniform correlation of these childhood diseases with MS to make unlikely a direct etiologic role for any. Switzerland showed the most correlation of these diseases with MS. Possibilities to consider are mode of transmission and age of onset of MS. 5 tables. 60 references. (AEd)

132. LAPUSAN, I.
Morbidity and mortality in the hospitals of the SR of Rumania in comparison with the morbidity and mortality of the population of the whole country.
Sante Publique (Bucur) 8:195-213, 65.

Statistics from 70 hospitals in regional capitals in 1959, comprising a 20% sample of all patients released from hospitals in the country. Data are given for morbidity and mortality, by sex and age. Causes of hospitalization and rates by cause are compared with rates of morbidity and mortality for the total population. 12 tables. (Ed)

133. LEHMAN, E. W.
Social class and coronary heart disease: A sociological assessment of the medical literature.
J Chron Dis 20:381-91, Jun 67.

The literature is reviewed to summarize findings and to evaluate the various indicators of social class. Patterns are conflicting because of differences in social class measurement. Occupation is suggested as the most reliable single measure of class; if used with education in a multivariate approach would enable researchers to answer if there is, in fact, a relationship between social class status and risk of coronary heart disease. 26 references. (Ed)

134. LEW, E.
Survivorship after myocardial infarction.
Amer J Public Health 57:118-27. Jan 67.

Recognizing the difficulties involved in evaluating coronary pathology in individual cases, evidence is presented from followup studies that statistical judgments, with certain qualifications, can be made as to the prognosis of individuals with a history of myocardial infarction. The studies were from insurance records. Some cases had had episodes of coronary disease; others, suspected coronary disease. Various groups were followedup after episodes of coronary disease. Hospital records were used in the survival estimates. Tables of survivorship rate and life expectancy are given. 3 tables. 8 references. (AEd)

135. LIPSCOMB, W. R.
Survey measurements of the prevalence of alcoholism. A review of five surveys.
Arch Gen Psychiat 15:455-61, Nov 66.

Problems encountered in measuring alcoholism are discussed. Attempt was made to determine how many practicing physicians have contact with patients with alcohol problems and how many treat such patients. Conclusion was that physicians show increased willingness to interest themselves in the alcoholic and his problems. 3 tables. 27 references. (Ed)

979. LISCHNER, M. W.
Prevalence of respiratory symptoms in an industrial population.
Dis Chest 50:476-86, Nov 66.

136. LITTLE, C. C.
Trends in reported incidence of cancer by age in Connecticut and in New York State (1935-1960).
Proc Nat Acad Sci USA 54:1779-85, Dec 65.

A survey on pathology of cancer of prostate in men and breast in women, peritoneum, lung and bronchus, and skin, Connecticut and New York states (excluding New York City), 1935-1960. In each category, the percentage of total cases in each 5-year age group has been determined, and the relative age distribution for successive year periods charted. In general, rates by site and sex, show close resemblance in the two states. 8 figures. 3 references. (AEd)

385. LOFGREN, S. (Editor)
Proceedings of the third international conference on sarcoidosis, Sept 11-14, 63.
Acta Med Scand 176: Suppl 425:92-177, 64.

980. LOGAN, W. P. D.
Morbidity statistics from general practice in England and Wales.
Who Public Health Rep 27:158-62, 65.

137. LOWELL, A. M.
A view of tuberculosis morbidity and mortality fifteen years after the advent of the chemotherapeutic era. 1947-1962.
Bibl Tuberc 22:55-124, 66.

A detailed study is presented of tuberculosis in the Western Hemisphere, Europe, Africa, Asia, and Oceania, 1947-62. At the beginning of the chemotherapeutic era, (1947-53), the tuberculosis reduction rate was greater than it has been in recent years. Morbidity declined in those years by 30% and mortality by 40%. Today, however, tuberculosis morbidity is still high in some parts of the world. In emerging countries, where tuberculosis control programs are starting, it is still the "white plague". Reduction of tuberculosis to a minor public health problem status is an attainable goal within a few generations in advanced countries, but eradication on a worldwide basis is only a prospect for the future. 34 tables. 10 figures. 35 references. (AEd)

138. MACCHARLES, C. W.
Information on morbidity.
Canad Med Ass J 97:331-6, 12 Aug 67.

Information obtained from studies on morbidity is valid only in relation to the specific time, the existing circumstances, and the methods used in the study. Data for Ontario, 1963, regarding morbidity "separations" from hospital and sick persons treated in a health insurance scheme are compared. Conditions that are not an important cause of death may make great demands on physicians' services. Sex-related variations were found in the order of frequency usage of physicians' services, e.g. for ages 45-64, coronary thrombosis ranks first in males and 15th in females. In 1954, the rate of physicians' services for mental, psychoneurotic and personality disorders was 33 sick persons per 1,000 participants. In 1963 the rate was 61. Explanation for the increase is not apparent. Such information is of value in planning aspects of medical services provision. 2 tables. 1 graph. 5 references. (AA)

139. MACMAHON, B.
Epidemiology of Hodgkin's disease.
Cancer Res 26:1189-201, Jun 66.

The epidemiologic features of Hodgkin's disease in 3 age groups, 0-14, 15-34, 50 and over, are summarized. Bimodality of the age incidence curve augments the idea that the entity as now described is heterogeneous. Two hypotheses are proposed on the basis of the epidemiologic evidence and a brief consideration of pathology and prognosis. Persons with Hodgkin's disease include at least 3 sub-groups, the etiology of which may be quite distinct. Hodgkin's disease in young adults is a chronic granulomatous inflammation, where as that occurring in persons over 50 is a neoplasm. 9 tables. 44 references. 4 charts. (AEd)

140. MACMAHON, B., WORCESTER, J.
Age at menopause, U.S., 1960-1962.
Vital and Health Statistics. Series 11, No. 19, Oct 66.

Findings on the menopausal status of women participating in the Health Examination Survey for adults, ages 18-79. Frequency of operative menopause and age at natural menopause are examined in relation to race, marital status, parity, family income, geographic region, height, and skinfold measurement. 25-30% of women ages 50-64 reported operative menopause. Negro women reported operative menopause more frequently than white, and single women less frequently than married. Women with small skinfold measurements may have natural menopauses slightly earlier than average. There were no other substantial associations with demographic and physiologic variables examined. 7 tables. (AEd)

141. MADAR, J.
Statistics and epidemiology of atherosclerosis.
Cas Lek Cesk 105:68-74, 21 Jan 66. (SLVK)

In nations which consume a diet low in calories and fats, death from coronary sclerosis is rare. Diseases and conditions associated with chronic hypercholesterolemia are found along with atherosclerosis. Among many possible etiological factors, fats have an important place. More research is needed. 4 tables. 54 references. (AEd)

142. MAINWARING, D.
Epidemiology of acute leukemia of childhood in the Liverpool area.
Brit J Prev Soc Med 20:189-94, Oct 66.

Etiological factors known to influence the development of leukemia in man include ionizing radiation and chromosomal abnormalities. There were 74 cases of acute leukemia in children under age 15, diagnosed 1955-1964, in the Liverpool area. Seasonal variation was not found but cases tended to occur in certain more densely populated areas. A clustering factor was detected by application of a computer technique. An excessive number of pairs separated by less than 4 km and 300 days were found. 6 tables. 1 figure. 17 references. (AEd)

143. MARKS, R. U.
Social stress and cardiovascular disease. Factors involving social and demographic characteristics. A review of empirical findings.
Milbank Mem Fund Quart 45: Suppl:51-108, Apr 67.

Review of research concerning relationships between sociological aspects of demographic variables and coronary heart disease. Different types of studies, the variety of study populations, and the frequency of methodologically unsound or inadequate studies make a quantitative summary evaluation inappropriate. The immediate need is for research in coronary heart disease rates that appear to be related to occupation, education, and rural or urban residence. Evidence from these studies suggests that social factors may play a definite role in the etiology of coronary disease. 154 references. (AEd)

144. MASI, A. T.
Population studies in rheumatic disease.
Ann Rev Med 18:185-206, 67.

Discussion of population studies in rheumatic disease in terms of available data, limitations, and contributions to understanding the disease. Problems are seen in the inadequacy of definition and criteria of diagnoses for some rheumatic diseases. Closer cooperation between the epidemiologist and the clinician is needed. (AEd)

145. MCCARROLL, J.
Measurements of morbidity and mortality related to air pollution.
J Air Pollut Contr Ass 17:203-9, Apr 67.

Associations of peaks in mortality in New York City with periods of high air pollution is demonstrated. Morbidity as indicated by symptoms of cough and eye irritation in 1,000 persons observed for 3 years is compared with the levels of SO_2 and particulate density to which they were exposed. Time lags of up to 28 days were introduced into the morbidity data and a constant relationship between air pollution levels and the symptoms was shown. 9 figures. 10 references. (Ed)

146. MCCARROLL, J., CASSELL, E. J., WOLTER, D. W.
Health and the urban environment. V. Air pollution and illness in a normal urban population.
Arch Environ Health (Chicago) 14:178-84, Jan 64.

To determine if there is a regular relationship, immediate or delayed, between the appearance of an illness symptom in a population and some measure of air pollution, 1,822 persons living within a half-square mile area in

New York City with reasonably homogeneous air pollution were studied. A daily record of 21 symptoms of disease was obtained by a weekly interview (1,090 adults over age 15). In applying the techniques of time series analysis to large volumes of health and air pollution data over long periods, it is possible to demonstrate a consistent relationship between certain measures of environmental pollution and the presence of symptoms in a normal urban population. 7 figures. 2 references. (AEd)

147. MCDONALD, J. C.
Influenza in Canada.
Canad Med Ass J 97:522-7, 2 Sep 67.

Influenza epidemics in Canada during the last 40 years are well defined in time and severity by the usual mortality statistics and by sickness absence figures from the Lagour Survey and the Federal Civil Service. Influenza A is the most important type. Influenza epidemics killed about 17,000 Canadians during the last 20 years. Influenza is responsible for 50% of all cases of sickness absence and 3% of all time lost from work. 2/3 of the excess mortality was among persons 65 or over. Canada had a little less influenza than the U.S., but 1/7 less than Britain. These differences could be related to the prevalence of chronic cardiorespiratory disease. 6 tables. 3 figures. 15 references. (AEd)

148. MCDONOUGH, J. R., HAMES, C. G., GARRISON, G. E.
The relationship of hematocrit to cardiovascular states of health in the Negro and white population of Evans County, Georgia.
J Chron Dis 18:243-57, Mar 65.

Hematocrit data from Evans County, Georgia, shows significantly lower values for Negroes than for whites, both sexes, all ages except males 15-34 years of age. Hematocrit was significantly correlated with age for both sexes. The correlation was inverse for males but direct for females. The racial differences could not be explained by differences in hookworm infestation, current nutritional intake, social class, occupation, glucose-6-phosphate dehydrogenase deficiency, sickle cell disease, parity, cigarette smoking. Hematocrit was found to be significantly associated with blood pressure, serum cholesterol, and body weight but not with coronary heart disease. Cigarette smokers had significantly higher hematocrit values than nonsmokers. 13 tables. 3 figures. 29 references. (AEd)

149. MEIGS, J. W.
Epidemiology of coronary disease in industrial workers. Absentee rates and parental disease histories.
Arch Environ Health (Chicago) 13:655-61, Nov 66.

Absenteeism was studied in relation to reported causes of parental deaths in a group of 98 men, aged 50 and over, and free of diagnosed coronary disease, other atherosclerotic diseases or diabetes, over 12 years' observation. There were statistical associations between low absentee rates and reported parental deaths from coronary disease, atherosclerosis and diabetes. The results support the hypothesis that genetic factors play a part in the occurrence of ischemic heart disease and that these factors have, under proper environmental circumstances, a potential for health as well as disease. 6 tables. 10 references. (AEd)

150. MEIGS, J. W., ALBRINK, M. J.
Epidemiology of coronary disease in industrial workers. Absentee rates and serum lipids.
Arch Environ Health (Chicago) 13:645-54, Nov 66.

Absenteeism and serum lipids in relation to coronary disease were studied in a group of 164 male factory production workers. After exclusion of those with excessive absence rates and non-heart disease, 98 males without evidence of ischemic heart disease (IHD) were available for comparison with 17 survivors and non-survivors of IHD. A number of trends and statistical differences between groups supported the hypothesis that subjects with IHD differ in underlying factors promoting resistance to non-coronary diseases in some men with a predisposition to IHD. 8 tables. 2 figures. 22 references. (AEd)

151. MIALL, W. E., LOVELL, H. G.
Relation between change of blood pressure and age.
Brit Med J 2:660-4, Jun 67.

A random sample of 2 populations in Wales (Rhondda Fach and The Vale of Glamorgan) were surveyed 3 times between 1954 and 1964 to study the relation between change in blood pressure, mean pressure attained, and age. Multiple regression analysis showed that changes in blood pressure over a span of 8-10 years were directly related to the mean pressure attained but only indirectly related to age. This implies that aging plays no direct part in determining the rate of change of pressure. 6 figures. 23 references. (AEd)

152. MICHALSKI, E., OSTROWSKI, K., SERZYSKO, W.
Coronary disease among employees of the National Bank of Poland, according to periodic examinations in 1960, 1962, and 1964. (POL)
Pol Tyg Lek 21:1444-6, 19 Sep 66.

Analysis of coronary disease in a group of 99 men and 112 women above age 30 examined 3 times. Historical data and ECG findings were taken according to WHO criteria, and ECG tracings were evaluated according to the Minnesota code. In the employees of this institution, the percentage of suspected coronary disease cases increases with age similarly in both sexes, higher in women than in men; increases in consecutive examinations; and the mean annual morbidity is similar in both sexes. The highest percentage of morbidity appears in men in the 5th decade and in women in the 6th decade. 3 tables. 4 references. (AEd)

789. MICKAL, A., BEGNEAUD, W. P., WEESE, W. H.
Glucose tolerance and excessively large infants. A twelve-year followup study.
Amer J Obstet Gynec 94:62-4, 1 Jan 66.

153. MIKKELSON, W. M., DODGE, H. J., DUFF, I. F.
Estimates of the prevalence of rheumatic diseases in the population of Tecumseh, Michigan, 1959-60.
J Chronic Dis 20:351-69, Jun 67.

The Tecumseh Community Health Study is a broad study of health and diseases in a community setting, using over 90% of the Tecumseh residents in a program of comprehensive health examinations, 1959-60. Inquiries were made regarding rheumatic symptoms, physical examinations of the spine and peripheral joints, and the latex fixation test for rheumatoid factor and serum uric acid measurement. Joint pain and joint swelling

were common complaints in 1/8-1/3 of the population ages 6 and over, and rose with age. Prevalence rates for various rheumatic diseases are given. Since this study was completed, the Tecumseh population has been re-examined, and X-ray results will supplement present data. 15 tables: 7 figures. 38 references. (AEd)

154. MILLER, F. J.
Childhood morbidity and mortality in NewCastle Upon-Tyne, further report on the thousand family study.
New Eng J Med 275:683-90, 29 Sep 66.

This study was begun in 1947, when all infants born May through June of 1947 in NewCastle Upon-Tyne were enrolled. Of the original 1,142 families, 847 remained after 5 years and 750 after 15 years. 44 infants died the first year and 5 died after 2 years. Since then, there have been no deaths. Morbidity data are for the 1st and 5th year. Data are from annual visits, medical examinations at school, and psychological tests. Estimates of percent with different disabilities after 15 years based on the remaining 750 families are given, including the proportion fatherless, motherless, low IQ (80), growth failure, speech defects, congenital abnormalities, and respiratory disease. 9 tables. 5 references. (Ed)

155. MITCHELL, S. C.
Age frequencies and disease associations in a number of cardiac conditions: An analysis from 143 hospitals.
J Chronic Dis 18:1051-8, Oct 65.

An analysis of all patients discharged from 143 hospitals, members of the Commission on Professional and Hospital Activities Study, with diagnoses of congenital heart disease, rheumatic fever and rheumatic heart disease, acquired valvular heart disease, acute coronary occlusion, syphilitic and non-syphilitic aortic aneurysm, and cardiac neoplasms. The proportion of such patients per 1,000 hospital discharges was assessed. The frequency by age of all patients with codable congenital heart disease or acquired valvular heart disease was documented, as was the association between certain congenital heart defects and rheumatic heart disease. The problems and limitations inherent in this type of study were discussed. 5 tables. 19 references. (Ed)

156. MONTOYE, H. J., EPSTEIN, F. H.
Tecumseh community health study: An investigation of health and disease in an entire community.
J Sport Med 5:127-31, Sep 65.

A health status survey of Tecumseh, Michigan is described. The objectives are to appraise health status and discover earliest signs of impaired health which will lead to prevention in the future. 9,500 inhabitants were studied including 3,000 participants working in one industry. Townspeople were willing to enter the project. The procedures included home interviews, frequent surveillance of minor ailments, and side studies involving outside environments which affect the family. Examinations were made, assisted by nursing personnel and technicians. In 1964, a second round of examinations neared completion. Water and milk supply, native flora, and vertebrate fauna investigations were included. 2 figures. 14 references. (Ed)

858. MONTOYE, H. J., EPSTEIN, F. H., KJELSBERG, M. O.
Relationship between serum cholesterol and body fatness. An epidemiologic study.
Amer J Clin Nutr 18:397-406, Jun 66.

157. MOORE, F. E.
Serum cholesterol levels of adults, U.S., 1960-1962.
Vital and Health Statistics. Series 11, No. 22, Mar 67.

Serum cholesterol levels for the civilian, noninstitutional population of the U.S., ages 18-79, based on the Health Examination Survey. Techniques used and the problems encountered in standardizing serum cholesterol determinations are discussed. Mean serum cholesterol levels rise with age, the rate of increase varying by sex. Corresponding changes occur in the proportion of persons with high serum cholesterol levels. At ages 18-44 years, 4% of the men and 5% of the women had levels of 260 or more. At ages 45-54, 26% of the men had such high values; and at ages 65-74 over 50% of the women did. In the South, levels were lower for Negro than for white men but there was no corresponding racial difference in the levels for women. No significant differences in level by income were noted. 7 tables. (AA)

158. MORTA, S., MIURA, T., YUGE, I.
Long-term observations on findings of periodical studies of hypertension.
Jap Arch Intern Med 12:583-91, Oct 65. (JAP)

A 4-year statistical study on hypertension was performed on a group of railroad men and results were analyzed. Electrocardiograph and x-ray findings were the only ones that showed a correlation with hypertension although optic disc, heart, x-ray, and PSP-Test values were tested. 5 tables. 39 references. (AEd)

159. MORRIS, J. N.
Capacity and incapacity for work: Some recent history.
Proc Roy Soc Med 58:821-5, Oct 65.

Some recent features of incapacity for work on account of certified ill health (sickness absence) were described. From available evidence, there was no reduction of sickness absence between post- and pre-war years. Since the middle 1950's, there has been a substantial increase in spells of sickness absence, particularly short absences. The increase is most evident (about 40%) in summer months. During the 1950's, chronic incapacity for work fell substantially at younger ages, especially 15-30. Among men in their early sixties, such incapacity increased by 25-30%. The pattern of morbidity is changing. Overall, however, there has been little change, per man, in the amount of time lost from work. 5 tables. 2 figures. 6 references. (AEd)

160. MORTON, W. E.
Altitude and rheumatic fever in Colorado.
Amer J Epidem 83:250-4, Mar 66.

There is no evidence in Colorado that altitudes between 3,500 and 10,150 feet directly affect rheumatic fever incidence, mortality, or prevalence, or rheumatic heart disease prevalence or mortality. 5 tables. 19 references. (AEd)

161. MOSEBECH, J., DREYER, K.
Coronary occlusion in Denmark, morbidity and mortality.
Acta Med Scand 180:429-40, Oct 66.

Study of 1,084 cases of acute coronary occlusion in medical departments in Denmark, March 1-April 30, 1963. 37% of the males and 49% of the females died. Fatality increased markedly after age 50. 44% of deaths occur in hospital. The average hospital stay for survivors

was 34 days; for nonsurvivors, 8 days. Data for all deaths from coronary occlusion in Denmark during the 2-month period were used to estimate that 5,700 males and 3,500 females die from this cause annually. 11 tables. 1 figure. 17 references. (AEd)

162. NASHOLD, R. D.
Attempted suicide by chemical agents.
Wisconsin Med J 64:327-8, Sep 65.

Reports of 46 hospitals, 1963, and 49 hospitals, 1964, Wisconsin, indicated 7,032 cases of poisoning; 773 were reported to be of suicidal intent—mostly adolescents under 20 or young adults 20-34, 78% were females. For every death due to suicide, there are approximately 10 attempts; the ratio is much higher for females. The ratio declines with age. A large number of attempts are 'suicidal gestures.' Although most attempts may be of an impulsive nature resulting from an emotional crisis and not a desire to die, they may end fatally due to miscalculation or failure to obtain prompt or appropriate treatment. 2 tables. (Ed)

163. NELSON, A. B.
Chronic illness among residents of nursing and personal care homes, U.S., May-June 1964.
Vital and Health Statistics. Series 12, No. 7, Mar 67.

Residents of nursing and personal care homes are described in terms of their health (e.g., number of chronic conditions, impairments, and mobility status) and in terms of the health services provided to them (e.g., time interval since last saw doctor, primary type of service provided by the home, nurse or aide on duty, supervisory nurse, and level of care). Over 96% of residents had 1 or more chronic conditions, the number of conditions increasing with age. Almost 40% were limited in mobility to their bed or room. 60% received some level of nursing care during the week prior to survey. 9 tables. (AEd)

164. NELSON, A. B.
Prevalence of chronic conditions and impairments among residents of nursing and personal care homes, U.S., May-June 1964.
Vital and Health Statistics. Series 12, No. 8, Jul 67.

Residents of nursing and personal care homes are described by their health and related characteristics and certain health services available to them. Health and related characteristics of the residents include type of chronic conditions and impairments, mobility status, and length of stay in the home. Measures of health services include time interval since resident last saw a doctor in the home, primary type of service provided in the home, nurse or nurse's aide on duty, and a supervisory nurse. 6 tables. (AEd)

165. NOWAK, R., VOLLBRECHT, A.
On the incidence of voice and speech disorders in school beginners.
Deutsch Gesundh 21:654-8, 7 Apr 66. (GER)

Report on medical examination of 2,805 6-year old children entering school, 59% of whom manifested conspicuous symptoms of voice and speech disturbances. Of these, 50% were stammerers, 37% suffered from nasal twang, 12% had various degrees of hoarseness, 1% were stutterers, and 0.3% suffered from agrammatism. 122 children suffering from speech and voice disturbances also suffered from auditory disturbances. 4 figures. 23 references.

166. OETTLE, A. G., HIGGINSON, J.
Age-specific cancer incidence rates in the South African Bantu: Johannesburg, 1953-1955.
S Afr J Med Sci 31:21-41, Jul 66.

Age-specific incidence of cancer among Johannesburg resident Bantu, 1953-55, has been standardized to African standard population and compared with similarly age-adjusted figures for the 10-city survey of U.S. (white and Negro). Childhood cancer has been compared by mean incidence over the first 3 quinquennia. Among Johannesburg resident Bantu males, the standardized morbidity for cancer of all sites is 1/3 that of U.S. whites and 1/2 that of U.S. nonwhites. The pattern of new cases of cancer encountered during the 3-year period among Johannesburg nonresident Bantu and North Eastern Transvaal rural Bantu are also reviewed. 12 tables. 11 references. (AEd)

167. OKINAKA, S., KUROIWA, Y.
Multiple sclerosis and allied diseases in Japan: Epidemiological and clinical aspects.
Progr Brain Res 21:183-91, 66.

Four cities (population 230,000-6,000,000), in various latitudes 43° N to 33° N), were surveyed for multiple sclerosis and allied diseases. The prevalence rates were about 2-4 per 100,000 population in each city. No difference was found between northern and southern cities. Thus, the prevalence of multiple sclerosis is very low in Japan. Clinical assessment showed that optic spinal type was most common, with marked vulnerability of the optic nerve and spinal cord. Devic's disease appeared to be more prevalent among the multiple sclerosis group of diseases in Japan. 6 tables. 2 figures. 10 references. (AEd)

168. OLAFSSON, O.
Health Surveys.
Nord Med 76:1365-9, 24 Nov 66.

General health surveys have been carried out in several countries over the last 10 to 17 years and detailed surveys have shown that 25-30% of the participants had some important disease. In 30-60% of these cases the disease was at an asymptomatic stage and therefore unrecognized. About 40-50% of the cases had an already known disease, but 50% of them were inadequately treated. The most common conditions found were obesity, cardiovascular diseases (hypertension), joint and muscle diseases, gastric and biliary diseases, and anemia. Tumors were present in about 1%, one-half being malignant. Out of 50% of the participants remitted for further investigation, 20% had some important disease, in most cases tractable. Advantages and disadvantages of health surveys are discussed. (AEd)

169. OLIVER, R. M.
Physique and serum lipids of young London busmen in relation to ischemic heart disease.
Brit J Industr Med 24:181-7, Jul 67.

Earlier studies of white London busmen revealed that ischemic heart disease experience of conductors is better than that of drivers. Physique and serum lipid concentrations of men in these 2 occupations are different. This study is of physique and serum lipid concentrations of recruits at younger ages. British bus driver recruits, ages 21-24, were 2.6 cm taller than conductor recruits, 7.3 lbs. heavier, 1 cm broader shouldered. Their waist and

chest measurements were 2-3 cm greater. They carried more skin fat and had a tendency to higher serum lipid concentrations than conductors. The importance of these findings in relation to the differing ischemic heart disease experience of bus drivers and conductors is discussed. It is suggested that the underlying factor responsible for the known physical differences or different ischemic heart disease experience of London bus drivers and conductors might be a common genetic one. 2 tables. 19 references. Appendix. (AEd)

170. OSBORNE, R. H., DE GEORGE, F. V.
Neoplastic diseases in twins: Evidence for pre- or perinatal factors conditioning cancer susceptibility.
Cancer 17:1149-54, Sep 64.

Reports an investigation to determine whether twins actually differ from the single born in respect to their cancer experience, and, if so, whether this might provide a profitable avenue for further investigations of the causes of human cancer. It is concluded that: the cancer experience of twins does differ from that of the single born; selection of twin pairs for survival of the 2 members will bias a twin sample for the purposes of a cancer study; the environmental stresses to which twins are unduly subjected during the prenatal and perinatal period may have an effect upon the likelihood of developing cancer, and are therefore promising areas for investigation of the causes of human cancer. References. (Ed)

171. O'SULLIVAN, J. B., GORDON, T.
Childbearing and diabetes mellitus, U.S., 1960-1962.
Vital and Health Statistics. Series 11, No. 21, Nov 66.

Data are presented on the relation of the number of pregnancies to diabetes from the Health Examination Survey for adults, ages 18-79. With increasing parity there was a rise in the probability of finding previously known diabetes among women in the Survey. Data from the population of Sudbury, Mass. did not show a similar difference for women or for men. Blood glucose levels, on the contrary, were found to be unrelated to marital status or childbearing, except for an isolated finding of higher blood glucose levels in women of parity 9 or more. The question of whether the higher parity of diabetes is due to a causal association between the metabolic stresses of pregnancy and the development of later diabetes remains moot. 10 tables. (A)

898. O'SULLIVAN, J. B., MCDONALD, G. W.
Decisive factors in designing the Sudbury study of chronic disease.
Pub Health Rep 81:891-7, Oct 66.

172. O'SULLIVAN, J. B., WILLIAMS, R. F.
Early diabetes mellitus in perspective. A population study in Sudbury, Massachusetts.
JAMA 198:579-82, 7 Nov 66.

An epidemiologic study of Sudbury, Massachusetts, has resolved the disparity in reported prevalance rates for early diabetes mellitus. When diagnosis required elevated postprandial blood sugars and an abnormal glucose tolerance test (GTT), 0.8% of the population were found to have previously unrecognized diabetes. A substudy indicated that prevalence determined by the GTT alone, without postprandial prescreening, would be 1.2%. Using diagnostic criteria of Fajans and Conn and of the British Diabetes Association gave rates of 6% and 7%, respectively, for the same data. Diagnosis based on a single postglucose value gave figures from 8% to 13%. Elevation of both postprandial and postglucose values are considered to indicate active clinical diabetes. Postglucose abnormalities alone, indicative of chemical diabetes, are considered meaningful for their relationship to increased atherosclerotic disease. 3 figures. 19 references. (AEd)

173. O'SULLIVAN, J. B., WILLIAMS, R. F., MCDONALD, G. W.
The prevalence of diabetes mellitus and related variables—a population study in Sudbury, Massachusetts.
J Chronic Dis 20:535-43, Jul 67.

77% of the town of Sudbury, Massachusetts, was examined for diabetes. Diagnosis required both elevated postprandial blood sugars and an abnormal glucose tolerance test. The prevalence of known diabetes was 1.1%, and newly discovered cases was 0.8%. Sex prevalence of diabetes indicated a preponderance of males. No increase was found in the prevalence of diabetes among childbearing women. No relationship was found between a close family history of diabetes and blood sugar levels. Postprandial blood sugar levels were found to be unrelated to body weight. Values obtained following the ingestion of 100g of glucose, on the other hand, were related to body weight indicating greater discriminatory ability. 5 tables. 1 figure. 20 references. (AEd)

859. OVCHAROV, M. K.
Selection of an area sample for the study of the morbidity of the population. (RUS)
Sovet Zdravookhr 13:3-11. 65.

174. PAFFENBARGER, R. S., MCCABE, L. J.
The effect of obstetric and perinatal events on risk of mental illness in women of childbearing age.
Amer J Public Health 56:400-07, Mar 66.

A study of mental illness among women of childbearing age in Hamilton County, Ohio, 1957-58. Age-adjusted rates for pregnant women were substantially lower than for new mothers. Rates for the first 6 months postpartum approximated those for nonchildbearing parous (ever-married) women, but were characterized by an explosive peak in the first month following delivery. Obstetric, perinatal, and social factors were studied in parapartum mental illness patients and normal mothers for the period 1940-1958. Patients and controls were similar in sociocultural indexes such as occupation of spouse, place of residence, mobility pattern, and legitimacy of offspring. Sharp differences were observed in several obstetric and perinatal variables, distinguishing prepartum from postpartum mental illness patients and both from normal mothers. Recurrences of mental illness during subsequent pregnancies repeated in the same category as the original attack, prepartum or postpartum, implying that the two types of mental illness differ in their causes. Occurrence of a prior mental illness unassociated with pregnancy also predisposed to parapartum breakdown. Present findings should be extended by clinical and experimental investigations. 6 tables. 1 figure. 11 references. (AEd)

175. PAFFENBARGER, R. S. JR., WOLF, P. A., NOTKIN, J.
Chronic disease in former college students. I. Early precursors of fatal coronary heart disease.
Amer J Epidem 83:314-28, Mar 66.

Of 40,000 male former college students, 351 were known to have died from coronary heart disease, from

alumni records and official death certificates. Two control subjects per decedent were chosen at random from classmates of equivalent age, who, according to alumni records, were still alive. 8 precursors of death from coronary heart disease were identified: heavy cigarette smoking, higher levels of blood pressure, excess body weight, shortness of stature, nonparticipation in athletics, early parental death, only child status, and sociopsychological exhaustion. Each correlated significantly with subsequent death from coronary heart disease. Combinations of precursors suggested predictive effects that were about additive. The relative importance of precursive factors could be assessed in terms of their estimated mortality ratios and prevalence in the study population. Heavy cigarette smoking was the most detrimental, combining a high mortality ratio with high prevalence. Participation in athletics was beneficial, presenting a low mortality ratio and high prevalence. 13 tables. 6 figures. 3 references. (AEd)

176. PARRISH, H. M., PAYNE, G. H., ALLEN, W. C.
Mid-Missouri stroke survey: A preliminary report.
Missouri Med 63:816-8 Passim, Oct 66.

A preliminary report including methods and data of the first year of the Mid-Missouri Stroke Survey is presented. A community survey of stroke includes more nearly accurate information of the extent of the problem within a community and increases knowledge of the natural history of the disease. The reported incidence and case fatality ratio of major cerebrovascular disease was found to increase significantly with age. Preliminary survivorship data in this survey showed that 33% of reported stroke patients died within 1 week of their stroke, and 67% were dead after 1 year. 5 tables. 8 references. (AEd)

899. PEARL, R. B., LEVINE, D. B., GERSON, E. J.
Studies of disease among migrants and native populations in Great Britain, Norway, and the United States. II. Conduct of field work in the United States.
Nat Cancer Inst Monogr 19:301-20, Jan 66.

177. PERRY, C. B.
On the changing face of rheumatism.
Bristol Medicohir J 82:54-7, Apr 67.

Study of incidence and severity of acute rheumatic fever over time among children in Bristol, England. Rates of carditis, mortality, recurrences of disease and resulting permanent heart damage have declined substantially since the turn of the century and particularly since the administration of penicillin (1955). 1 table. 2 figures. 5 references. (Ed)

178. PETRILLI, F. L., AGNESE, G., KANITZ, S.
Epidemiologic studies of air pollution effects in Genoa, Italy.
Arch Environ Health 12:733-40, Jun 66.

Topography and air pollution emissions of the town of Genoa, Italy, are described and results of 10 years of air pollution monitoring given. A correlation between air pollution and frequency of lung cancer and other respiratory diseases was made, and results reported. They revealed significant differences in the frequency of respiratory symptoms and new cases of bronchitis of populations living in districts with different air pollution problems. The meaning is discussed and research plans outlined. (AEd)

179. PICKERING, G.
Hyperpiesis, high blood pressure without evident cause: Essential hypertension.
Brit Med J 5468:959-68, 23 Oct 65; 5469:1021-26, 30 Oct 65.

The first part of the paper presents a summary discussion of the clinical picture of hypertension. The second part uses data from various studies to discuss hereditary versus environmental bases of high blood pressure. The author concludes that the data suggest that environment is the more important factor in the incidence of high blood pressure. Family size, physical work, and obesity are related to the rate of increase in blood pressure with age. 4 tables. 17 figures. 85 references. (AEd)

180. POTGIETER, J. F., FELLINGHAM, S. A., NESER, M. L.
Incidence of nutritional deficiency diseases among the Bantu and Colored populations in South Africa as reflected by the results of a questionnaire survey.
S Afr Med J 40:504-9, 18 Jun 66.

A questionnaire on the incidence of malnutrition was sent to all registered physicians in South Africa, in 1960, and the 375 replies showed evidence that malnutrition is extremely prevalent among Bantu and Colored populations and that their access to milk and other protective foods is limited. Kwashiorkor, marasmus, pellagra are most often found in South Africa, kwashiorkor being higher among the Bantu than among Colored children. The total incidence of nutritional diseases (kwashiorkor, marasmus, pellagra, rickets, scurvy) is lower than the tuberculosis rate. The survey is important as a pilot study as well as for information on malnutrition in South Africa. 4 tables. 9 references. (AEd)

415. POTVIN, A. R.
On cancer mortality and morbidity in the Province of Quebec.
Un Med Canada 94:442-8, Apr 65. (FR)

181. PUKHLEV, A., ASTRUG, A., PASKALEV, T.
Epidemiological studies of blood pressure in Bulgaria.
Cor Vasa 8:1-9, 66.

14,625 inhabitants of Bulgaria were checked for blood pressure by 60 practitioners. Each measurement was repeated 9 times, and the mean, the systolic-diastolic and pulse pressures registered. Women under 40 years of age showed lower rates than men of the same age. Blood pressure was higher for women in rural than in urban areas (except for ages 20-29). Single men had lower pressure than married men; single women higher for ages 30-39 and lower for ages 20-29 than married women. Laborers had lower pressure than did persons in other occupations. Smoking had no effect on blood pressure. Blood pressure was higher in women in climacteric groups, and in those from a family with a history of hypertension. Blood pressure rose with body weight. 2 tables. 17 references. (AEd)

182. PUTKONEN, T., HANNUSELA, M., MUSTAKALLIO, K. K.
Cold season prevalence of the clinical onset of sarcoidosis.
Arch Environ Health (Chicago) 12:564-8, May 66.

A cold season peak of occurrence of sarcoidosis is shown by tests in Finland. It is concluded that this peak is compatible with the view that sarcoidosis is an infectious disease spread by the respiratory route. 5 figures. 34 references. (AEd)

183. QUINN, R. W., DOWNEY, F. M., FEDERSPIEL, C. F.
The incidence of rheumatic fever in metropolitan Nashville, 1963-65.
Pub Health Rep 82:673-82, Aug 67.

In a survey of the incidence of rheumatic fever in Metropolitan Nashville, 1963-65, 3 times as many cases were found by the study methods as were reported by the official health agency, the annual increase being 12.6 cases per 100,000. Seasonal incidence was highest in winter and spring months. The incidence was nearly twice as high among nonwhites as among whites. Age-specific rates were highest for ages 10-14. Among all cases, 80% had initial attacks and 18% had recurrences. Clinical evidence of carditis was present in more than 40% of initial and recurrent attacks. It was present in 37% of patients under age 20 and in 43% of those over age 20. Despite availability of effective prophylaxis, recurrent attacks of rheumatic fever continued to occur. (AEd)

184. QUINN, R. W., FEDERSPIEL, C. F.
Rheumatic fever and rheumatic heart disease. A five-year study of rheumatic and non-rheumatic families.
Amer J Epidem 85:120-36, Jan 67.

19 rheumatic families, composed of 32 index rheumatic and 66 non-rheumatic individuals; and 17 non-rheumatic families, composed of 95 controls, contributed a total of 7,536 persons-months' experience to the study, 1957-63, during which 2, 813 cultures were taken. The three diagnostic groups were compared on: rate of group A streptococci recovery, absolute serologic rise, rates of streptococcal and nonstreptococcal upper respiratory infection, and attacks of rheumatic fever. (AEd)

185. REID, D. D.
Studies of disease among migrants and native populations in Great Britain, Norway, and the United States. 1. Background and design.
Nat Cancer Inst Monogr 19:287-99, Jan 66.

Summary of the historical evolution, objectives, and methods of study of cardiorespiratory and other disease experience of U.S. residents born there, in Britain, and in Norway. This experience is to be compared with that of siblings of British and Norwegian immigrants still living in their native countries and of representative samples of the adult populations of the 2 countries. A postal inquiry on the prevalence of defined cardiorespiratory syndromes and on personal habits, occupational, and residential histories will be followed by a longer study involving the collection of similar data from a sample of deaths occurring in these various British and Norwegian populations. 1 table. 38 references. (AA)

186. REID, D. D., HOLLAND, W. W., HUMERFELT, S.
A cardiovascular survey of British postal workers.
Lancet 1:614-8, 19 Mar 66.

A survey, using standardized examination techniques, of 676 men aged 40-59 employed as motor vehicle drivers in the General Post Office, shows prevalences for: angina, 4%; history of possible infarction, 2%; and intermittent claudication, 2%. When differences in physique, as indicated by weight, are taken into account, the residual excess in blood pressure of nonsmokers over present smokers becomes insignificant but the higher level in men working in more rural areas persists. Symptoms and ECG changes, indicating ischaemia, are associated with elevation of blood pressure more than with increased weight. These findings and the incidental uncovering of some serious cardiovascular disorders are discussed in relation to the future role of such surveys in preventive medicine. 8 tables. 1 figure. 19 references. (AEd)

187. RIISHEDE, J.
Cerebral apoplexy: Statistical and diagnostic considerations.
Canad Med Ass J 97:151-60, 22 Jul 67.

In Canada 15,000 persons die from cerebral apoplexy each year; 1/5 of them are ages 45-65. Probably 2/3 of stroke patients are able-bodied until the stroke but most are disabled afterwards. Diagnostic grouping of 300 stroke patients based on arteriographic and ventriculographic examinations revealed that 74 had intracerebral hematomas, 114 had arterial occulsions 101 were possible instances of cerebral circulation insufficiency, 11 had various other lesions. An exact diagnosis cannot be established merely on the clinical signs and symptoms, even between infarction and hematoma. Surgical treatment is beneficial in certain intracerebral hematomas and extracranial arterial lesions. 13 figures. 11 references. (AEd)

422. RINGERTZ, N.
Epidemiology of gastrointestinal cancers in Scandinavia. II. Report on Iceland.
Nat Cancer Inst Monogr 25:241-7, Jul 67.

188. RIPKA, O., SRB, V.
Occurrence of arterial hypertension in Czechoslovakia. First report.
Rev Czech Med 11:149-60, 65.

An epidemiological investigation of hypertension in 9,000 households throughout Czechoslovakia. Blood pressure rises with age, beginning at age 25 in men and 15 in women. High blood pressure was associated with: ages over 44, professional occupations, heavier weight, relatives of hypertensives or atherosclerotics, former smokers, women of several pregnancies. 1 tables. 9 figures. 7 references. (AEd)

189. ROBERTS, J.
Binocular visual acuity of adults, U.S., 1960-1962.
Vital and Health Statistics. Series 11, No. 3, Jun 64.

Health Examination Survey results from testing visual acuity show that among the U.S. civilian, noninstitutional population aged 18-79 years: Over 1/2 have normal or better distance vision without correction and more than 3/4 with whatever refraction they were using at the time of the survey. Near vision tends to more deficient than distance vision, because of the physiological effects of aging on the normal eye. Men have better unaided vision than women at both distance and near. Visual acuity declines with age from about 45 years on, with the percentage of men with normal or better vision exceeding women throughout the age range. Regression with age starts a little earlier with near than with distance vision. No consistent racial differences were found in the prevalence of normal or better unaided vision either at distance or near for men or women throughout the age range. However, corrected near and distance acuities were significantly better for white men and women than for Negro men and women. 8 tables. (AA)

190. ROBERTS, J.
Binocular visual acuity of adults, by region and selected demographic characteristics, U.S., 1960-1962.
Vital and Health Statistics. Series 11, No. 25, Jun 67.

Binocular central visual acuity findings for U.S. adults by race, region, area of residence, education, income, occupation, and industry as determined from the Health Examination Survey findings for adults, ages 18-79. Negro adults had somewhat better acuity without glasses, but with their usual correction, the proportion of white adults testing 20/20 (14/14 at near) or better was markedly greater than for Negroes. A positive association was found between the visual acuity of 20/20 or better and educational level and family income, both reflecting the age gradient. 12 tables. (AEd)

191. ROBERTS, J.
Weight by height and age of adults, U.S., 1960-1962.
Vital and Health Statistics. Series 11, No. 14, May 66.

Height-weight data are provided for males and females, ages 18-79, from the Health Examination Survey. Comparison is made with 3 studies. American men range in average weight from 146 lbs. at 62 inches in height to 190 lbs. at 73 inches; for women the range is 129 lbs at 58 inches to 157 lbs. at 67 inches. 21 tables. (AEd)

192. ROBERTS, J., BAYLISS, D.
Hearing levels of adults, by race, region, and area of residence, U.S., 1960-1962.
Vital and Health Statistics. Series 11, No. 26, Sep 67.

Data on the hearing threshold levels of American adults by race, region, and area of residence from the Health Examination Survey for adults ages 18-79. Findings are limited to those for the "better" ear and principally to trends observable at the extremes of the acuity range—those with better than "normal" hearing (thresholds of -5 decibels or more below audiometric zero) and those with presumably some hearing handicap (thresholds above 15 decibels). Better than "normal" hearing was found to be more prevalent among Negro than white adults. No really distinct pattern of differences in rates for impaired hearing was observed among the regions. Comparisons with previous hearing surveys in this country which contained data by race, region, or area of residence are included. 12 tables. (AEd)

193. ROBERTS, J., BURCH, T. A.
Osteoarthritis prevalence in adults by age, sex, race, and geographic area, U.S., 1960-1962.
Vital and Health Statistics. Series 11, No. 15, Jun 66.

Prevalence of osteoarthritis among American adults, ages 18-79, based on X-rays of hands and feet obtained in the Health Examination Survey. Data by age, sex, race, region, and severity of the disease are shown. Standards for the diagnostic criteria, rating methods, and the content of the examination are discussed. 37 out of every 100 persons have an osteoarthritic condition in which at least the hands and feet are involved. Prevalance increases steadily with advancing age to 85% by age 75. Under age 45 nearly all cases are mild. By 75, moderate and severe cases are found as frequently as mild. Under age 45, men are more frequently affected than women but after age 54 prevalence among women is greater. Comparison is made with other surveys. 9 tables. (AEd)

194. ROGERS, K. D., REESE, G.
Health studies—presumably normal high school students. II. Absence from school.
Amer J Dis Child 109:9-27, Jan 65.

Frequency, cause, and pupil characteristics related to absence were studied in a suburban Pittsburgh high school, 1957-61. Most absence from school was due to minor morbidity. Respiratory disease of apparent infectious etiology was the predominant illness associated with absence. Females had slightly higher sick absence rates in almost all categories than males. Half of the sick absences necessitated confinement in bed with about 1/5 requiring a physician. There was seasonal variation, and a given child tended to repeat his relative frequency of absences in successive years. Pupils with high absence frequency had lower academic performance, lower rates of participation in school activities, higher drop-out, and more visits to the school nurse. It is suggested that high absence frequency in many instances indicates general social maladaptation and that surveillance of absence frequency by school health personnel may be effective means for identifying "problem children." 12 tables. 7 figures. References. (AEd)

195. ROSEN, S.
Hearing studies in selected urban and rural population.
Trans NY Acad Sci 29:9-21, Nov 66.

Studies of cholesterol levels, coronary heart disease, and atherosclerosis among the Mabaan tribe in southeast Sudan discovered that the diet of these people keeps them in excellent physical condition, with no signs of these diseases, and excellent hearing. Experiments were conducted at 2 mental hospitals in Helsinki with one of the highest fat diets in the world. In one hospital, patients' diets were changed to non-fat food, and they showed less coronary heart disease, less atherosclerosis, lower cholesterol level, and better hearing than did patients in the control hospital which continued on the usual Finnish diet. The author claims diet has more effect on hearing than noise. A dietary regime diminishing and maintaining a normal blood cholesterol level should begin with children. 3 tables. 13 figures. 14 references. (Ed)

196. ROTKIN, I. D.
Further studies in cervical cancer inheritance.
Cancer 19:1251-68, Sep 66.

3 subsamples of 251 cervical cancer patients and 251 matching controls were explored for possible heritability of cervical cancer. Results show that risk of cervical cancer as a site-specific lesion appears uninfluenced by strong heritability; however, uniformity of trend and result in all 3 subsamples confirms previous findings of significantly heavy excesses of skin cancer in the kindred of cervical cancer patients. All samples were from the Kaiser Foundation Hospitals. 22 tables. 5 figures. 14 references. (AEd)

197. RYVKIN, I. A., MASLOVA, K. K., TIAPINA, L. A.
The significance of employment and heredity in hypertensive disease.
Cor Vasa 8:10-18, 1966.

50,000 Moscow workers and clerks in industrial combines were investigated. 6% of males and 7% of females had hypertension. The highest prevalence was among those who were under neuropsychic stress, the lowest

among textile workers. Heredity plays an important role in hypertension. Manual workers have the lowest rate. Both exogenous and endogenous factors play a role in development of the disease. 4 figures. 30 references. (AEd)

198. SACKETT, D. L., WINKELSTEIN, W., JR.
The epidemiology of aortic and peripheral atherosclerosis. A selective review.
J Chronic Dis 18:775-95, Aug 65.

An analysis of mortality data concerning aortic and peripheral atherosclerosis has revealed an association with age, and, for aortic aneurysm, an excess mortality among males. Sex and age differences are discussed. An evaluation is made of factors possibly associated with the disease including ethnic groups, cholesterol, diet, cigarette smoking, cancer, and disorders of blood coagulation. Suggestions are made regarding the development of diagnostic criteria, multiple cause coding of death, and morbidity studies. 6 tables. 86 references. (AEd)

199. SAGEN, L.
Length of convalescence after surgery, U.S., July 1960-June 1961.
Vital and Health Statistics. Series 10, No. 3, Jul 63.

Statistics on the length of convalescence after tonsillectomy, appendectomy, hernia operation, hemorrhoidectomy, hysterectomy, and delivery other than Cesarean, by age, sex, usual activity, and family income. Based on data collected in the Health Interview Survey. 18 tables. (AA)

200. SAGILD, U., LITTAUER, J., JESPERSEN, C. S.
Epidemiological studies in Greenland 1962-1964. I. Diabetes Mellitus in Eskimos.
Acta Med Scand 179:29-39, Jan 66.

4,249 Eskimos living in 3 different areas of Greenland were surveyed with the idea of disclosing prevalence of diabetes mellitus. 24 were found to have postprandial glycosuria. In 18 of these, a fasting blood sugar or a standard glucose tolerance test was obtained. One case was found and 2 borderline cases noted. Greenland's population is approximately 32,000 and only 10 cases of diabetes were found in all hospitals in Greenland. Reasons for this rarity are discussed. 3 tables. 2 figures. 16 references. (AA)

201. SANTRUCEK, M., VACEK, M.
Epidemiological studies of the ischemic heart disease II. Critical evaluation of methods and results.
Cesk Zdrav 14:419-27, Aug 66.

Attention is drawn to the minor importance of general morbidity and mortality rates for investigation of ischemic heart disease (IHD). The methods of investigation are evaluated and the shortcomings of planning and interpretation of the results of these epidemiological surveys are described. Vulnerable groups, presymptomatic and liminal forms of IHD are discussed. Direct followup of IHD trends was possible during the short period. Suggested further work is outlined. 8 references. (AEd)

202. SAXEN, E., HAKAMA, M.
Cancer incidence in Finland with a note on difficulties in comparing epidemiological data.
Cancro 19:88-96, 66.

Incidence of tumors collected at the Finnish Cancer Registry for 1960. Problems in comparing data among countries include differences in age distributions of the countries and differences in diagnostic techniques, e.g., slow-growing tumors have a greater likelihood of being observed in mass examinations than fast-growing tumors. 9 figures. (AEd)

203. SCHOTTENFELD, D., HOUDE, R. W.
The changing pattern of cancer morbidity and mortality and its implications.
Med Clin N Amer 50:613-30, May 66.

The magnitude of the cancer problem in the U.S. is measured by morbidity and mortality for the various types of cancer. During the last 30 years, age-adjusted death rates increased by 35% for men and decreased by 13% for women. Men have had less cancer of the stomach and more cancer of the lung, pancreas, and prostate, and more leukemia. Women have had less stomach cancer and fewer deaths from cancer of the uterus, but more leukemia and cancer of the lung, pancreas, colon, and ovary. Nonwhites have higher cancer mortality than whites. The incidence of cancer in relation to age, sex, and site are summarized and possible explanations and significance of the changing rates of the major forms of cancer are discussed. 1 table. 5 figures. 78 references. (AEd)

204. SCHUMAN, L. M.
The epidemiology of thrombo-embolic disorders. A review.
J Chronic Dis 18:815-45, Aug 65.

Thrombo-embolic disorders (exclusive of cerebral and coronary thrombosis) were responsible for over 12,000 deaths in 1962. Frequency of specific disorders, age, sex, race and time differences are discussed. Deficiencies in mortality and morbidity data are noted. 24 tables. 28 references. (AEd)

205. SCHWEITZER, M. D., GEARING, F. R., PERERA, G. A.
The epidemiology of primary hypertension. Present status.
J Chronic Dis 18:847-57, Aug 65.

Current mortality statistics indicate that hypertension and hypertensive heart disease account for nearly 10% of the deaths attributed to cardiovascular-renal diseases. It is estimated that hypertension may be reported in fewer than 20% of the deaths in which it is known to the attending physician. Surveys among selected groups suggest that 5-25% of the adult population is affected with primary hypertension. It is more common among women, but more severe in men. Primary hypertension appears to be more prevalent in highly industrialized regions than in industrially underdeveloped ones. A number of factors including heredity, diet (particularly electrolyte intake), obesity, occupation, and psychological and social characteristics are thought to be associated with this disease. Changes in death certification and multiple cause coding could improve the usefulness of mortality statistics for epidemiological studies. A major need in hypertension research is the conduct of long-term community and family studies. 2 tables. 47 references. (AEd)

902. SEAL, S. C.
Integrated general health survey in India.
WHO Pub Health Pap 27:163-80, 65.

206. SHAPIRO, S., STRAX, P., VENET, L.
Evaluation of periodic breast cancer screening with mammography. Methodology and early observations.
JAMA 195:731-8, 28 Feb 66.

Periodic breast cancer screening with mammography and clinical examination is being evaluated to determine its value in reducing breast cancer mortality among women. Samples of women, 40-64 years, enrolled in the Health Insurance Plan of Greater New York are randomly assigned to study and control groups, each of which will contain 30,000 women. Results to date are consistent with the hypothesis that screening leads to earlier detection of breast cancers than is ordinarily experienced and that mammography contributes significantly to detection. The crucial question is whether mortality from breast cancer is lowered because of the screening, and definitive findings on this issue will require at least 5 years of followup. 5 tables. 2 figures. 13 references. (AEd)

207. SHIGEMATSU, I.
Epidemiological consideration on the changes of tuberculosis.
Jap J Tuberc 13:Suppl:1-26, Dec 66.

Data from a survey in a small district, and routinely collected data on towns and villages, prefectures, and countries were studied in an epidemiological consideration of the changes in tuberculosis incidence. The rapid decrease in mortality for tuberculosis in recent years suggested that morbidity be studied but lack of morbidity data necessitated the use of mortality statistics. Factors related to changes in the picture of tuberculosis were investigated. In addition to the strong influence of chemotherapy, many environmental factors and the popularization of counter measures against tuberculosis are related in various degrees. 32 tables. 18 figures. 11 references. (AEd)

208. SHIGEMATSU, I., KATO, T.
Trends in tuberculosis and its relationship with lung cancer from the epidemiological viewpoint.
Jap J Nurs 19:26-37, Apr 67. (JAP)

No English summary.

209. SHIMKIN, M. B.
Epidemiology of cancer: spatial-temporal aggregation.
Cancer Res 25:1363-74, Sep 65.

Data are presented and discussed on age-adjusted cancer mortality in 24 countries by sex and site. The distribution of cancer by factors such as environment, season, climate, diet, socioeconomic class, occupational groups, and in relation to the distribution of other diseases is discussed. 6 tables. 108 references. (Ed)

210. SIEVERS, M. L.
Disease patterns among southwestern Indians.
Pub Health Rep 81:1075-83, Dec. 66.

In 1955 the Division of Indian Health was made responsible for health care of most American Indians and Alaskan natives. 7 Indian Health areas were set up. The Phoenix area includes all Indian reservations (except Navajo) in Arizona, Colorado, Nevada, and Utah. A number of diseases are discussed and among them the following were found to be a problem in the area: diabetes, gastric cancer, tuberculosis, trachoma, alcoholism, dietary deficiency, Laennec's cirrhosis, bleeding esophogeal varices, injuries and traumatic deaths. 6 figures. 30 references. (AEd)

211. SMITH, J. M., KNOWLER, L. A.
Epidemiology of asthma and allergic rhinitis. I. In a rural area.
Amer Rev Resp Dis 92:16-30, Jul 65.

Study of asthma and allergic rhinitis in 1,760 rural families. The findings support those of a previous clinical study of 611 patients with these diseases. There is evidence of an increased risk of developing these diseases when a normal person without allergic background marries an affected spouse. The data are compatible with the possibility that some transmissible factor may influence the development of the peculiar kind of allergic response observed in people with the so-called "allergic diathesis." The evidence is not suggested as proof of nonhereditary transmission of these diseases, but as a basis for consideration of other possibilities. 8 tables. 2 figures. 12 references. (AEd)

212. SMITH, T.
Social stress and cardiovascular disease. Factors involving sociocultural incongruity and change. A review of empirical findings.
Milbank Mem Fund Quart 45:Suppl:23-39, Apr 67.

Four relationships between cardiovascular disease and factors of sociocultural change and incongruity are suggested. Modern or urban and industrialized settings have a higher incidence of hypertension or coronary heart disease than traditional or rural and nonindustrialized settings. Migrants have a higher incidence of disease, both at place of origin and at destination, than nonmigrants. Persons who are occupationally, residentially, and socially mobile within a culture have a greater frequency of disease than the nonmobile. People who change cultural settings and do not adapt to the new setting have a definite disease exposure compared with those who do adapt. 26 references. (AEd)

948. SODA, T.
A nationwide simple morbidity survey in Japan.
WHO Public Health Pap 27:181-96, 65.

213. STALLONES, R. A.
Epidemiology of cerebrovascular disease. A review.
J Chronic Dis 18:859-72, Aug 65.

Review of data on geographic differences in cerebrovascular mortality shows large variations between different countries, between different areas of the same country, and from one time to another. Geographic distributions of cerebral vascular disease deaths do not resemble those of atherosclerotic heart disease. Similarly, the risk of death from cerebral vascular disease varies by individual characteristics such as age, sex, and race, and this is not clearly explained by the occurrence of atherosclerosis or hypertension. Mortality data are impaired not only by the lack of consistent disease definitions and death registration practices but also by the difficulty in separating stroke deaths into more specific subcategories. Accurate diagnosis of cerebral thrombosis and cerebral hemorrhage should show these causes to be distributed more nearly like those of arteriosclerotic heart disease and hypertension, respectively. Population studies of morbidity due to stroke are so few that meaningful comparison with mortality distributions is not possible. 3 tables. 6 figures. 26 references. (AEd)

214. STAMLER, J.
Atherosclerotic coronary heart disease. The major challenge to contemporary public health and preventive medicine.
Conn Med 28:675-92, Sep 64.

Those who recover from an acute episode of coronary disease in middle age have a subsequent mortality risk several times greater than the general population of age-sex matched individuals. Key coronary risk factors are examined, i.e., high serum cholesterol, high blood pressure, heavy cigarette smoking, overweight, lack of exercise. Prevention of coronary disease would seem to require an effort to assess risk and detect persons with asymptomatic subclinical coronary disease, particularly through use of periodic examinations including biochemical tests, electrocardiograms, etc. 13 tables. 16 figures. References. (AEd)

438. STAMLER, J., FIELDS, C., ANDELMAN, S. L.
Epidemiology of cancer of the cervix. 1. The dimensions of the problem: mortality and morbidity from cancer of the cervix.
Amer J Public Health 57:791-803, May 1967.

215. STEINITZ, R.
Pulmonary tuberculosis and carcinoma of the lung. A survey from two population-based disease registers.
Amer Rev Resp Dis 92:758-66, Nov 65.

The risk of tuberculosis patients developing pulmonary cancer was investigated epidemiologically in Israel, using information from 2 population-based disease registers and other countrywide data. The risk seemed to be of the same magnitude for TB patients as for heavy smokers in males and to be even greater in females. Results from both morbidity and mortality studies were consistent in demonstrating that male tuberculous patients had a 5-fold risk (and females a 10-fold risk) of developing pulmonary cancer. Further studies are needed. 8 tables. 21 references. (AEd)

216. STEINMANN, B.
Epidemiology of apoplexy.
Schweiz Med Wschr 96:1733-40, 31 Dec 66.

Morbidity and mortality of apoplexy and the pathogenic risk factors of the disease are discussed. The morbidity of acute stroke is 1.5% of the general population, and in the U.S. and Western Europe apoplexy represents 13-15% of the causes of death. Among the risk factors, hypertension and arteriosclerotic heart diseases play a prominent role in the occurrence of cerebral arteriosclerosis and the causation of stroke. Rapid hemodynamic change associated with a drop in blood pressure, and cerebral ischemic disease, cholesterol, and diabetes do not play as important a pathogenic role (although hypercholesterolemia may increase the risk) in apoplexy as in myocardial infarction. 9 tables. 73 references. (AEd)

217. STERLING, T. D., PHAIR, J. J., POLLACK, S. V.
Urban morbidity and air pollution. A first report.
Arch Environ Health (Chicago) 13:158-70 Contd, Aug 66.

The relationship between level of pollutants in air and incidence of illness was investigated at the community level for several air pollutants and for a number of diseases. Hospital admission rates were used as an index of intensity of illness. The fluctuation of hospital admissions showed a very definite preference for certain days of the week and a marked avoidance of others. Since the level of various pollutants is also subject to the influence of the day of the week, due to industrial schedules, driving patterns, etc., the overall effect appeared to be one of cancellation so that the net correlation between "pollution level" and "health" was effectively zero. Validity of the analyses was insured by correcting for the effect of day of the week to hospital admission prior to examination for possible effects of pollutant levels. Once this was done, correlations between fluctuations in air pollution and morbidity were extremely high and convincing for relevant disease categories. 3 tables. 16 figures. 8 references. (AEd)

218. STERN, E., LACHENBRUCH, P. A., DIXON, W. J.
Cancer of the uterine cervix. II. A biometric approach to etiology.
Cancer 20:190-201, Feb 67.

Analysis of environmental, social, and psysiological factors and cancer of the cervix for individuals voluntarily attending a cancer detection center. 4 groups were studied: well controls, those with the cancer precursor (dysplasia of the cervix), those with pre-invasive cancer of the cervix, and those with invasive stages of the disease. Endocrine marker, age at marriage, marital events, and religion were most effective in predicting cancer status but are relatively of little value in separating stages of the disease. A different set of variables predicts cancer among the controls, and discriminates between stages of cancer. Pre-menopausal married women with cancer of the cervix are found to be older, physiologically, than the controls. Family history of cancer is of some importance in discriminating between women at pre-invasive and invasive stages of cancer of the cervix, suggesting a genetic factor. 9 tables. 29 references. (AEd)

219. STOKES, J., 3rd., BASSET, D. R., ROSENBLATT, G.
Coronary disease and hypertension in Hawaii, racial distribution in 1,167 men.
Hawaii Med J 25:235-40, Jan-Feb 66.

Among 1,167 men working for the City and County of Honolulu or the Hawaiian Telephone Company, 163 were found by screening to have reportable electrocardiographic findings. Six previously unrecognized myocardial infarctions were found along with 15 previously unrecognized instances of left ventricular hypertrophy. Hawaiians had nearly twice the prevalence of hypertension found in Japanese and Caucasians. Chinese had least of all. 7 tables. (AA)

220. STOUDT, H. W., DAMON, A., MCFARLAND, R.
Weight, height, and selected body dimensions of adults, U.S., 1960-62.
Vital and Health Statistics. Series 11, No. 8, Jun 65.

Findings from the Health Examination Survey for adults, ages 18-79, by age for men and women on weight, height, erect and normal sitting height, knee and popliteal height, elbow rest and thigh clearance height, buttock-knee and buttock-popliteal length, elbow-to-elbow breadth, and seat breadth. Measurement techniques are described. Comparisons are made with findings from previous surveys in the U.S. and Canada. The influence of age, race, ethnicity, socioeconomic status, civilian and military status, and measuring techniques noted in previous studies are discussed. 16 tables. (AEd)

221. SUAREZ, R. M., SUAREZ, R. M., JR.
Morbidity and mortality in aged Puerto Ricans.
J Amer Geriat Soc 13:805-14, Scp 65.

A study was made of 356 hospital case records, 242 autopsy records, and deaths and the death rate for 1962 on Puerto Rican people 80 years of age and older. Diseases of the cardiovascular system were the most frequent cause of morbidity and mortality. The vascular system (including that of the heart, brain, and kidneys) appeared involved in nearly 100% of the autopsies. Diseases of the respiratory system occupied 4th place as a cause of illness and 5th place as a cause of death. Cancer of the prostate gland was the most common malignant lesion, followed closely by cancer of the stomach and of the pancreas. Not only clinically, but also at autopsy, it was often difficult to decide which pathologic process was the cause of death. A multiplicity of lesions is the rule in this age group. 1 table. 1 figure. 2 references. (AEd)

222. SUTTON, G. F.
Hospitalization in the last year of life, U.S., 1961.
Vital and Health Statistics. Series 22, No. 1, Sep 65.

A survey of hospitals and resident institutions concerning inpatient care during the last 12 months of life. Statistics show whether care was received in the last year of life in short-stay hospitals or in resident institutions, and the differences in likelihood of care associated with age, sex, color, residence, and cause of death. Differences in likelihood of care varied from more than 9 in 10 persons, who died of certain diseases of early infancy, congenital malformations, and malignant neoplasms, to less than half of those who died from accidents. Females and white persons more often received care in the last year of life than did males and nonwhite persons. Infants were most likely to have been hospitalized, but after age 1 the likelihood increases with age, is lower in metropolitan areas than elsewhere, and lower in the South than in other regions. 16 tables. (AEd)

223. SYME, S. L.
Sociological approach to the epidemiology of cerebrovascular disease.
Public Health Monogr 76:57-93, 66.

Sociological research in cerebrovascular disease studies is virtually nonexistent, but a variety of sociological observations in studies of coronary heart disease, serum lipid concentrations, and blood pressure levels are assumed relevant because of their involvement in the atherosclerotic and hypertensive process. Coronary heart disease risk was higher when social discontinuities existed (between childhood and adult environments). Elevated blood pressure levels existed among physically and socially mobile people. Elevated levels of serum cholesterol and triglyceride were found among medical students whose fathers were foreign born. 8 tables. 19 references. (AEd)

224. SYME, S. L., HYMAN, M. M., ENTERLINE, P. E.
Cultural mobility and the occurrence of coronary heart disease.
J Health Hum Behav 6:178-89, Winter 65.

A study of coronary heart disease (CHD) was carried out in 1957 in an area of North Dakota on white men ages 35 and over. Comparisons were made for 203 coronary cases and 406 age matched controls. Independently of such factors as diet, cigarette smoking, blood pressure, relative body weight, and parental longevity, certain sociocultural factors were found to be related to CHD. Ratios of observed to expected cases were higher for all measures of generational, career, residential, and situational mobility. For example, ratios were 2 to 3 times higher among white collar workers of rural background than agricultural or blue collar workers of rural background. Cultural mobility, a concept common to all the forms of mobility, is found to be positively associated with the occurrence of CHD in this population. 8 tables. 24 references. (AEd)

225. SYRIER, A. H.
Final report on a study of the social consequences of bronchial asthma.
Allerg Asthma (Leipzig) 12:53-60. 66. (GER)

An inquiry in asthmatics and normals about their social circumstances is discussed. The influence of this illness on their education, work, social life, etc. may be important. 8 tables. 20 references. (AEd)

226. TAKEDA, K., KOBAYASHI, H., MIYASHITA, T.
Reliability of cancer diagnosis.
Saishin Igaku 20:3282-9, Dec 65. (JAP)

Reliability of diagnosis of cancer was checked for 71,922 autopsy cases, 1948-52, 1958-62, from all universities and large hospitals in Japan. There was greater reliability in diagnosing cancer of the surface organs (e.g. breast, uterus, and rectum) than of the deep organs (e.g. liver, pancreas). During the 10 years of observation, reliability of diagnosis has been increasing especially of the deep organs. (From Excerpta Medica, Sec 16, Vol 15, No 11, Nov 67.) (Ed)

227. TAUBE, C. A.
Characteristics of patients in mental hospitals, U.S., April-June 1963.
Vital and Health Statistics. Series 12, No. 3, Dec 65.

Statistics on patients in long-stay mental hospitals by age, color, sex, length of stay, and certain indices of physical and mental disability. The data were collected from a probability sample of mental hospitals in the U.S. in which patients stay an average of 30 days or more. It is estimated that there were about 558,000 patients in 414 long-stay mental hospitals. Median age was 54 years, median stay was 6.4 years. There were 113 males per 100 females, and 20% of the patients were nonwhite. 9 tables. (AEd)

228. TAUBER, J. B., CIOCCO, A.
Heart disease among industrial workers.
J Occup Med 8:317-25, Jun 66.

3,359 healthy male nonsalaried employees of a steel plant were observed for an average of 3.6 years (1956-1958). 1% over 40 years of age acquired heart disease annually—one-half were myocardial infarctions. Men with high diastolic blood pressure and weight-height ratio demonstrated a higher risk in acquiring the disease. 11 tables. 8 references. (AEd)

229. TAYLOR, P. J.
Individual variations in sickness absence.
Brit J Industr Med 24:169-77, Jul 67.

Analysis of records of sick absence, (1 day or more) at a refinery for over 20 years. Sickness spells and calendar

days of absence have a negative binomial distribution resembling the distribution of industrial accidents first described almost 56 years ago. This pattern is not related to occupation or to length of service. Lateness and absenteeism for reasons other than sickness or holidays also follow this pattern. 11 tables. 2 figures. 22 references. (AEd)

230. TERRIS, M., CHAVES, A. D.
An epidemiologic study of sarcoidosis.
Amer Rev Resp Dis 94:50-5, Jul 66.

A study of 240 tissue confirmed cases of sarcoidosis in New York City, by age, education and place of birth and an equal number of matched TB and non-TB control subjects failed to demonstrate that past residence in southern states, exposure to pine forests, or factors relating to rural areas (although it has formerly been believed that this was true) related to incidence of sarcoidosis. An association with farm residence showed no evidence of sarcoidosis cases. 8 tables. 13 references. (Ed)

231. THOMAS, H. E., JR., KANNEL, W. B., DAWBER, T. R.
Cholesterol-phospholipid ratio in the prediction of coronary heart disease. The Framingham study.
New Eng J Med 274:701-5, 21 Mar 66.

The Framingham study was begun in 1949 to study the epidemiology of coronary heart disease (CHD) in a random sample of the population. 5,127 persons initially free of the disease were followed by biennial examinations for 15 years. While serum cholesterol and phospholipid level were separately found to be valuable in assessing the risk of development of CHD, the ratio of the two lipids was not. Any prognostic significance that existed for the lipids independently was cancelled out by the division of one by the other. The cholesterol-phospholipid ratio is of no value in determination of proneness to CHD, and within the values tested has no important role in the pathogenesis of atherosclerosis. 1 table. 5 figures. 11 references. (AEd)

232. TIBBLIN, G.
High blood pressure in men aged 50—a population study of men born in 1913.
Acta Med Scand Suppl 470:1-84, 67.

Study of high blood pressure in a random sample of 855 50-year old men all born in the same year and selected from an urban population in a rapidly changing industrial society. All degrees of the disease state were considered from the early to the malignant phase. Two signs were recorded as manifestations of hypertensive disease: focal narrowings of arterioles and general attenuation of arterioles. There was close agreement between the mean values of blood pressure in this study and in studies made in other places around the world suggesting that environmental factors are of secondary importance. The sample was divided into groups based on blood pressure readings and compared for obesity, focal narrowings in the arterioles of the eye-ground, renal disease, infectious diseases, heart volume, lipids, uric acid, fasting blood sugar, smoking habits, and socioeconomic factors. 50 tables. 4 figures. 168 references. (Ed)

444. TIRNAVEANU, B.
Evolution of the mortality and morbidity of cardiovascular diseases in the Rumanian Peoples' Republic.
Stud Cercet Med Intern 5:287-96, 64. (RUM)

445. TIRNAVEANU, B.
Mortality and morbidity caused by vascular lesions affecting the central nervous system in the Rumanian Socialist Republic.
Neurologia (Bucur) 11:343-50, Jul-Aug 66. (RUM)

233. TOM, B., BROWN, B., CHANG, R.
Peptic ulcer disease and temperature changes in Hawaii.
Amer J Med Sci 250:635-42, Dec 65.

No evidence of a relationship between changes in temperature and weather and the evidence of hemorrhaging ulcer was found in a study of 425 peptic ulcer cases, 1958-1962, in Honolulu, Hawaii. A seasonal variation of higher incidence in February-March, May, and October-November was found despite a relatively fixed temperature environment. A similar study made in Philadelphia is included. 5 tables. 12 references. (AEd)

234. TRAUGER, D. A.
The relative risk of developing tuberculosis.
Amer J Public Health 56:428-33, Mar 66.

It appears that tuberculosis is still a public health problem. Age-specific rates suggest that the risk of new infection increases with age. Men are more susceptible than women and prevalence is higher in large, crowded areas. Although vaccines and chemoprophylaxis are helpful, many may not be reached. Improvement in living conditions and better diet (beef steak perhaps would be as good as vaccine) would help solve the problem in some areas. 3 tables. 3 figures. 13 references. (Ed)

235. TROMP, S. W.
A tentative study of the geographical distribution of asthmatic patients in the Netherlands during 1960.
Acta Allerg (Kobenhavn) 22:105-17, 67.

To collect data on bronchial asthma, all practitioners in provinces of the Netherlands were sent a circular in September 1961. They were asked to provide the total number of asthmatic patients by age and sex. Reported asthmatics per municipality were plotted on a municipality map of the country. In almost all cases, asthma is higher in males than in females. Geographic and age distributions of asthmatics are shown. Further studies must be made to evaluate atmospheric cooling conditions and their influence on triggering asthma. 3 tables. 4 figures. 3 references. (Ed)

849. TRUETT, J., CORNFIELD, J., KANNEL, W.
A multivariate analysis of the risk of coronary heart disease in Framingham.
J Chronic Dis 20:511-24, Jul. 67.

236. UEDA, U., MURAO, S., KURDIWA, A.
Characteristics of myocardial infarct in the Japanese with special reference to a comparison with Europeans and Americans.
Jap J Clin Med 23:1703-10, Sep 65. (JAP) No English summary.

237. UYS, C. J.
National disease patterns in South Africa.
S Afr Med J 40:159-65, 19 Feb 66.

Diseases peculiar to, or constantly occurring in, South Africa are referred to as "national diseases". Geographic and climatic factors, except in skin cancer in whites, do not appear to be significant. Many diseases are described,

kwashiorkor, cirrhosis, siderosis, etc. due to dietary factors and malnutrition which are above all else responsible for determining morbidity, mortality, and the general disease pattern. Even in malignant disease in the Bantu, deficiency in diet is an important causal factor. Mortality attributable to alcoholism and local drinking habits reaches surprising proportions, reflected more in whites as cirrhosis and pancreatitis in the Cape Colored, and of acquired porphyria in the Cape Colored and the Bantu. Siderosis incidence is also high among the Bantu and should be grouped in this category. Indirectly, the effect of malnutrition is noticeable, though not measurable, in almost all of the "national diseases". 101 references. (AEd)

238. VAZQUEZ ROCHA, M., VELASCO LOMBARDINI, R.
Social aspects of coronary disease in Uruguay.
Sistole 15:38-44, Jan-Dec 64. (SP)

The proportion of persons suffering from diseases designated as arteriosclerosis and coronary disease was 1,600 males and 1,070 females per 100,000 population based on 26,134 persons examined in Uruguay, 1957-58. 233 males and 130 females had lesions and an estimated 1,600 such persons die annually. Death rates for all causes and the proportion due to cardiovascular disease are given for 1944-1959. 5 tables. 6 references. (Ed)

239. VUYLSTEEK, K., BEERENS, J., STEVENS, J.
Results of electrocardiographic, radiographic and biometric studies in the scope of an epidemiological study in a non-selected population.
T Soc Geneesk 43:558-65, 13 Aug 65. (DUT)

2,246 subjects in the Netherlands, 40 years of age or older, were examined in an epidemiological investigation. Results of radiophotography, electrocardiography and biometrics are discussed. Tests seem to indicate that although there is an important difference in the mortality by coronary pathology, electrocardiographic prevalence is the same for the two sexes in the studied group. Statistical analysis eliminates the hypothesis that obesity would have any correlation with the prevalence of electrocardiographic coronary pathology in the 40-69 year age group. Findings relate to prevalence not to mortality of coronary disease. 12 tables. 21 references. (AEd)

451. WALLACE, D. C.
A study of the natural history of cerebral vascular disease.
Med J Aust 1:90-5, 21 Jan 67.

240. WALLER, J. A.
Chronic medical conditions and traffic safety: review of the California experience.
New Eng J Med 273:1413-20, 23 Dec 65.

Records of 2,672 people with known chronic medical conditions were compared with those of 922 drivers renewing their licenses not known to have chronic medical conditions. Drivers with diabetes, epilepsy, cardiovascular disease, alcoholism, and mental illness averaged twice as many accidents and 1.3-1.8 times as many violations as the comparison group on an age-adjusted basis. Drivers convicted for illegal use of drugs averaged 1.8 times as many violations but no more accidents than the comparison group. Results of the study suggest that the present emphasis on epilepsy as the major medical handicap to safe driving is too narrow an approach. However, routine physical examinations for all drivers, as attempted in Pennsylvania, are also inadequate. 8 tables. 1 figure. 14 references. (AEd)

241. WATERSTON, J. F.
Morbidity in a country practice.
J Coll Gen Pract 10:18-39, Jul 65.

A study of morbidity in a country practice in Scotland for 1962. The practice consists of 2,627 National Health patients, mainly artisan in occupation. During 1962, the doctor had 18,345 consultations. The ratio of surgery consultations to home visits was 1.9 to 1. The average number of consultations per day was 66. Each disease incident required an average of 5 consultations. For seeing patients 11 hours a day, 66 per day allows 10 minutes per patient and does not take account of the time spent on other work in the practice—telephoning, surgery, pathology, letter-writing, and clinical work relating to the practice. The evidence supports the general contention that a diminution of practice lists is urgently required. Age-sex data by disease incidence are given. 17 tables. 13 figures. 3 references. (Ed)

453. WEBER, A.
Some characteristics of mortality and morbidity in Europe.
WHO Public Health Pap 27:131-48, 65.

242. WESLEY, A. G., SCRAGG, J. N., RUBIDGE, C. J.
The racial incidence of disease in hospital children in Durban.
S Afr Med J 41:332-5, 1 Apr 67.

A statistical survey of incidence of disease in Indian, African, and white hospitalized children in Durban, 1960-1962. It is shown that the Indian child in Durban is significantly more susceptible to rheumatic fever, acute nephritis, and nephrotic syndrome than other racial groups. Similarly, the African child has relatively high incidence of amebiosis and CCF complicating rheumatic fever and acute nephritis. The only conditions in which incidence in white children seemed to exceed that of other groups were those of accidental poisoning and aseptic (viral) meningitis. 7 tables. 3 figures. 19 references. (AEd)

243. WEST, K. M., KALBFLEISCH, J. M.
Glucose tolerance, nutrition, and diabetes, in Uruguay, Venezuela, Malaya, and East Pakistan.
Diabetes 15:9-18, Jan 66.

Glucose tolerance tests were made in 4 countries. In the tested subjects over 30 years of age, the prevalence of "diabetes" was highest in Venezuela, 7.3%, Uruguay, 6.9%, Malaya, 3.5% and lowest in East Pakistan, 1.5%. The percent of calories in the diet derived from fat was similarly distributed, i.e. highest in Uruguay, 33%, Venezuela, 24%, Malaya, 21%, and lowest in East Pakistan, 7%. Carbohydrates are consumed more often in East Pakistan than in the other countries. In Venezuela and East Pakistan, prevalence was twice as high among women as among men but in Malaya the reverse was found. In Uruguay, 31% or more were "obese". In Venezuela and Uruguay there was an association between the prevalence of diabetes and both parity and a history of large babies. 3 tables. 4 figures. 36 references. (AEd)

244. WESTLUND, K.
Further observations on the incidence of myocardial infarction in Oslo.
J Oslo City Hosp 15:201-31, Oct 65.

Data from a registration scheme for myocardial infarction at ages 30-64 in Oslo begun in 1956. Matching of cases with files from industrial physicians suggested that the registration scheme may have missed 10% of all diagnosed male cases. Incidence rates by age and sex are given. No significant seasonal patterns were found. Registration cases were matched with census files and infarction rates were analyzed according to various characteristics obtained in the census. 20 tables. 5 figures. 7 references. (AEd)

457. WESTLUND, K., NICOLAYSEN, R.
Serum cholesterol and risk of mortality and morbidity. A 3-year followup of 6,886 men.
Scand J Clin Lab Invest 18:Suppl 87:1-19, 66.

245. WILDER, C. S.
Acute conditions, incidence and associated disability, U.S., July 1961-June 1962.
Vital and Health Statistics, Series 10, No. 1, May 63.

Incidence of acute conditions and associated days of restricted activity, bed disability, and time lost from work and school, by age, sex, calendar quarter, residence, and geographic region. Based on the Health Interview Survey. 33 tables. (AA)

246. WILDER, C. S.
Acute conditions, incidence and associated disability, U.S., July 1962-June 1963.
Vital and Health Statistics. Series 10, No. 10, Jun 64.

Incidence of acute conditions and associated days of restricted activity, bed disability, and time lost from work and school, by age, sex, calendar quarter, residence, and geographic region. Based on data from the Health Interview Survey. On the average 2.2 cases of acute illness were reported per person. About 58% were respiratory in nature. 36 tables. (AA)

247. WILDER, C. S.
Acute conditions, incidence and associated disability, U.S., July 1963-June 1964.
Vital and Health Statistics. Series 10, No. 15, Apr 65.

Statistics on the incidence of acute conditions and associated days of restricted activity, bed disability, and time lost from work and school, by age, sex, calendar quarter, residence, and geographic region. Based on data collected in the Health Interview Survey. 33 tables. (AA)

248. WILDER, C. S.
Acute conditions, incidence and associated disability, U.S., July 1965-June 1966.
Vital and Health Statistics. Series 10, No. 38, Jun 67.

Statistics from the Health Interview Survey on annual incidence of acute illnesses and injuries involving medical attention and/or reduced daily activity; days of restricted activity, bed-stay, and time lost from work and school associated with these acute conditions and distributed by age, sex, residence, geographic region, and calendar quarter. Incidence of acute conditions was 212.0 conditions per 100 persons per year. The incidence rate for influenza-like illnesses was 43.7 per 100 persons. The rate of injury was 25.4, of measles, 1.5, per 100 persons per year. 33 tables. (AEd)

249. WILDER, C. S.
Bed disability among the chronically limited, U.S., July 1957-June 1961.
Vital and Health Statistics. Series 10, No. 12, Sep 64.

Statistics on average annual days of bed disability for all persons, persons with limitation of activity, and persons with limitation of mobility, due to chronic conditions, by degree of limitation, geographic region, family income, living arrangements, sex, and age. Based on data from the Health Interview Survey. 36 tables. (AEd)

250. WILDER, C. S.
Chronic conditions and activity limitation, U.S., July 1961-June 1963.
Vital and Health Statistics. Series 10, No. 17, May 65.

Statistics from the Health Interview Survey on prevalence of selected chronic diseases and impairments reported as causing activity limitation distributed by age, sex, color, usual activity status, family income, marital status, and associated bed disability in a year. 12% of the civilian, noninstitutional population of the U.S. were limited in activity to some degree due to chronic conditions. 30.6 million chronic conditions were reported as causing limitation. Some of the leading causes were: (1) heart conditions, (2) arthritis and rheumatism, (3) mental and nervous conditions, (4) impairments (except paralysis) of back or spine, (5) impairments (except paralysis and absence) of lower extremities and hips, and (6) hypertension without heart involvement. 22 tables. (AEd)

251. WILDER, C. S.
Current estimates from the Health Interview Survey, U.S., July 1962-June 1963.
Vital and Health Statistics. Series 10, No. 5, Jan 64.

Provisional estimates of incidence of acute conditions, number of persons reporting one or more chronic conditions, number of persons injured, hospital discharges, and disability days by sex and age. Based on data collected in the Health Interview Survey. 17 tables. (AEd)

252. WILDER, C. S.
Current estimates from the Health Interview Survey, U.S., July 1963-June 1964.
Vital and Health Statistics. Series 10, No. 13, Oct 64.

Provisional estimates of incidence of acute conditions, number of persons reporting one or more chronic conditions, number of persons injured, hospital discharges, disability days, number of physician and dental visits, and time intervals since last physician and dental visits. Based on data collected in the Health Interview Survey. 21 tables. (AA)

253. WILDER, C. S.
Current estimates from the Health Interview Survey, U.S., July 1964-June 1965.
Vital and Health Statistics. Series 10, No. 25, Nov 65.

Provisional statistics from household interviews on incidence of acute illnesses and injuries and associated disability days; percent of civilian, noninstitutional population with 1 or more chronic conditions; number of persons injured and associated disability days; number of hospital discharges; number of disability days associated with illness; average cost per acquisition of prescribed medicine; and percent distribution of cost of nonprescribed medicine by place from which obtained. 21 tables. (AEd)

254. WILDER, C. S.
Disability days, U.S., July 1961-June 1962.
Vital and Health Statistics. Series 10, No. 4, Oct 63.

The short-term disabling effects of illness or injury caused an average of 16 days of activity restriction during the year 1961-62 among the civilian population not residing in institutions. Estimates are based on data collected in the Health Interview Survey and given by sex, income, urban-rural residence, occupation, and usual activity status. In most instances, females averaged more disability days than did males. Average number of restricted activity and bed disability days decreased as family income increases. 22 tables. (AEd)

255. WILDER, C. S.
Disability days, U.S., July 1963-June 1964.
Vital and Health Statistics. Series 10, No. 24, Nov 65.

Data on short-term disabling effects of illness or injury in the civilian, noninstitutional population of the U.S. collected in the Health Interview Survey. Included are number of days per person by such variables as age, sex, residence, geographic region, usual activity status, family income, and employment status. The rate of restricted activity for the average person during the 12-month period was 16.2 days due to acute and chronic illness and injury. Included in this rate were 6.0 days spent in bed. Currently employed persons, on the average, were absent from work 5.5 days due to illness or injury. The average child, aged 6-16 years, lost 5.0 days from school. 30 tables. (AEd)

256. WILDER, C. S.
Health characteristics by geographic region, large metropolitan areas, and other places of residence, U.S., July 1963-June 1965.
Vital and Health Statistics. Series 10, No. 36, Apr 67.

Statistics from the Health Interview Survey on extent of illness and disability by geographic region and place of residence, and on utilization of 3 types of medical services. Topics covered are long-term and short-term disability, persons injured, incidence of acute illnesses and injuries, hospitalization in short-stay facilities, and volume of physician and dental visits. 19 tables. (AEd)

257. WILDER, C. S.
Hospital discharges and length of stay: short-stay hospitals, U.S., July 1963-June 1964.
Vital and Health Statistics. Series 10, No. 30, Jun 66.

There were an estimated 24.8 million discharges from short-stay hospitals, involving 1 night or more, among the civilian noninstitutional population, 1963-64. Data from the Health Interview Survey accounted for 96% of the total volume of discharges. The remaining 4% of discharges were obtained for persons who died during the reference period prior to the time of interview. Hospital discharges and days of stay are distributed by age, sex, color, condition for which hospitalized, surgical treatment, type of hospital, geographic region, place of residence, family income, education of the head of the family, usual activity status, and marital status. 34 tables. (AEd)

258. WILDER, C. S.
Types of injuries, incidence and associated disability, U.S., July 1957-June 1961.
Vital and Health Statistics. Series 10, No. 8, Apr 64.

Incidence of injuries by measures of effect of injury, type of injury, family income, residence, geographic region, living arrangements, calendar quarter, sex, and age, and associated days of restricted activity and bed disability. Based on data collected in the Health Interview Survey. 16 tables. (AA)

259. WILLIAMS, A. F.
Epidemiology and ecology of alcoholism.
Int Psychiat Clin 3:17-49, Summer 66.

Alcoholism is a sizable and far-ranging problem, manifesting itself in other social phenomena (e.g. welfare, drunkenness, arrests). Rates were found to vary widely in different social segments. Studies in the U.S. report rates high for males, whites, urban residents, Catholics, those aged 36-60, and especially those whose education ceased at a high school level. Alcoholism rates are high among the Irish; low among Italians, Jews, (rates among Jews are increasing at the present time), and Mormons. 5 tables. 39 references. (AEd)

260. WILSON, R. W.
Cigarette smoking and health characteristics, U.S., July 1964-June 1965.
Vital and Health Statistics. Series 10, No. 34, May 67.

Statistics from Health Interview Survey on selected health characteristics and cigarette smoking habits of the civilian, noninstitutional population 17 years and over. In general, persons who had ever smoked cigarettes reported higher rates of heart conditions, bronchitis and/or emphysema, sinusitis, and peptic ulcers, more acute conditions, and more days of disability than persons who had never smoked cigarettes. The proportion of persons who reported chronic conditions was usually higher among former smokers than among present smokers. Where a relationship existed between a given condition and cigarette smoking, the relationship tended to increase as cigarette consumption increased. 23 tables. (AEd)

261. WINKELSTEIN, W., JR.
Some retrospective studies of cerebrovascular disease.
Pub Health Monogr 76:41-9, 66.

Results of studies are discussed in terms of the factors investigated and their relationship to cerebrovascular disease. Factors found to be associated include socioeconomic status, serum cholesterol levels, lipoprotein levels, smoking, diabetes, ECG changes, and emotional stress. Suggestions are made for further research, particularly for studies of families of diseased persons. 2 tables. 50 references. (Ed)

262. WITKIN, M. J.
Patients discharged from short-stay hospitals, U.S., Oct.-Dec., 1964.
Vital and Health Statistics. Series 13, No. 1, Oct 66.

Data on patients discharged from short-stay hospitals based on information from hospital records of a national sample of hospital discharges. Analysis relates to personal characteristics (age, sex, marital status, color, and discharge status) and to the hospital (geographic region, size, and ownership). Length of stay, conditions diagnosed, and operations and operative procedures performed are reviewed. Tables. (AEd)

263. WITKIN, M. J.
Utilization of short-stay hospitals by characteristics of discharged patients, U.S., 1965.
Vital and Health Statistics. Series 13, No. 3, Dec 67.

Utilization of short-stay hospitals based on information from records of a subsample of discharges occurring

within a national sample of short-stay hospitals. Hospital discharges, days of care, and average length of stay are distributed by age, sex, color, marital status, and discharge status. Discharge rates, daily hospital bed usage rates, and rates of days of care are distributed by age, sex, and marital status. 13 tables. (AEd)

264. WOOLSEY, T. D.
Morbidity in relation to smoking habits: Some preliminary findings from the health interview survey.
Amer J Public Health 56:Suppl 56:9-16, Dec 66.

Questions on smoking habits were included in the questionnaire used in the Health Interview Survey during the period July-Dec. 1964. This enables tabulation of such health measures as number of disability days per person, incidence of acute conditions, and prevalence of chronic conditions by smoking habit and amount smoked, for a national probability sample. Preliminary results are presented for 5 morbidity measures by status with respect to cigarette smoking. 5 tables. (Ed)

265. WUNDERLICH, G. S.
Characteristics of residents in institutions for the aged and chronically ill, U.S., April-June 1963.
Vital and Health Statistics. Series 12, No. 2, Sep 65.

Information on health and related characteristics of residents in institutions for the aged and chronically ill by age, sex, color, and length of stay. Data were collected on a probability sample of about 37,000 residents of institutions such as nursing homes, homes for the aged, and hospitals which specialize in the long-term care of the aged or chronically ill. 70% of the residents were at least age 75, 66% were women, 4% were nonwhite. The average stay was 3 years. 16 tables. (AEd)

266. WUNDERLICH, G. S., SUTTON, G. F.
Episodes and duration of hospitalization in the last year of life, U.S., 1961.
Vital and Health Statistics. Series 22, No. 2, Jun 66.

Statistics on number of episodes of care and average days of care persons received in short-stay hospitals and resident institutions during the last year of life. Differences in the amount of care are shown by age, sex, color, residence, and cause of death. About 72% of the decedents had 1 or more episodes of hospitalization during the last year of life. There were 1,198 episodes per 1,000 decedents, most in short-stay hospitals, and an average of 45 days of care per decedent. Nonwhite persons tended to have smaller numbers of episodes of care and to average fewer days of care than white persons. The episode rate for persons dying of malignant neoplasms was 3 times that of persons dying of accidents. The average number of days of care ranged from 1 day for hospitalized decedents dying of certain diseases of early infancy up to 129 days for those dying of arteriosclerosis. 15 tables. (AEd)

267. ANONYMOUS.
Accidental deaths in mines and quarries.
Statist Bull Metrop Life Insur Co 47:6-7, Jul 66.

The number of accidental deaths in mining and quarrying operations have been cut nearly 3/4 in the past 2 decades. Coal mining accounted for the great majority of accidental mine deaths, 1960-64. Underground mining is more hazardous than surface mining, and of all coal mining operations, hard coal mining apparently is most hazardous. Non-metal mining ranked second in the degree of risk among the mining groups considered. Table. (Ed)

268. ANONYMOUS.
Accidental deaths increase again in 1966.
Statist Bull Metrop Life Insur Co 47:1-3, Dec 66.

An estimated 112,000 persons lost their lives in accidents in the U.S. during 1966—5,000 more than in 1965, and 20,000 more than in 1961. The rise in motor vehicle fatalities accounted for about 4/5 of the 1966 increase, even increasing faster than mileage traveled. Home accidents accounted for 1/5 of accidental deaths. Public accidents other than motor vehicle caused 19,000 deaths, accidents connected with employment 14,500. 1 table. (Ed)

269. ANONYMOUS.
Accidental falls: fatal and nonfatal.
Statist Bull Metrop Life Insur Co 46:4-6, Aug 65.

About 19,000 persons die annually in the U.S. from falls; most are among those age 65 or older (14,000). Males have a higher death rate than do females under age 75; after that rates are higher among females. Each year, about 12 million persons sustain injuries in varying degrees of seriousness from falls. As a consequence, about 3 million in the U.S. today suffer from injuries to back, limb, or other sites. Over half the fatal falls and over half the injuries from falls occur at home. (Ed)

270. ANONYMOUS.
Canada's accident problem.
Statist Bull Metrop Life Insur Co 47:7-9, Jan 66.

Canada's accident rate in 1964 was 54.9 per 100,000, having risen from a 1960 rate of 52.6. Motor vehicle fatalities account for the rise, which is greater among males at every age being nearly 3 times that of females. At age 65 and over, the death rate of pedestrians nearly equals that among car occupants. Falls rank second as a cause of accidents in both sexes. Females have more falls than men, and mortality increases with age. Drownings are over three times as high among males as among females. (Ed)

271. ANONYMOUS.
Characteristics of cerebral vascular mortality.
Statist Bull Metrop Life Insur Co 47:8-11, Apr 66.

Between 1952 and 1963, cerebral vascular disease has caused about 200,000 deaths a year and has been a contributory cause in another 150,000 deaths annually. For white males, mortality rates have declined from 86.7 to 77.6 per 100,000 population since 1952. The percent decrease varies by age: 25% at ages 45-64, 15% at ages 65-74, 6% at ages 75-84; but an increase of 28% for ages 85 and over. The pattern for white females is similar. White-nonwhite differences remain constant. 1 table. (Ed)

272. ANONYMOUS.
Current mortality report. Standard ordinary policyholders. Metropolitan Life Insurance Company.
Statist Bull Metrop Life Insur Co 47:11, Jul 66.

Death rate for all causes of death, first half of 1966 compared with 1965 and 1962-65. Cardiovascular diseases, malignant neoplasms, pneumonia, and influenza are among the major causes of death. Accident and suicide rates are given. (Ed)

273. ANONYMOUS.
Deaths and autopsies. A statistical review of deaths and post mortem examinations of Pennsylvania residents over sixty-four years of age for the year 1964.
Penn Med 70:61-2, Mar 67.

A statistical review of deaths and post-mortem examinations of Pennsylvania residents over 64 years of age. Of 123,845 deaths during 1964, 63% were in age group over 64; post-mortems were conducted on about 23% of these. Data are given on: (1) the number of deaths in general hospitals, nursing homes, county homes, and noninstitutional homes, (2) 30 causes of death, and where death occurred, and (3) percent of autopsies performed by place, and by cause of death. 3 tables. (Ed)

274. ANONYMOUS.
Death in the family.
Statist Bull Metrop Life Insur Co 48:5-7, Apr 67.

Death in the family has markedly diminished. The father is likely to be the first to die, while 50 years ago infectious diseases would have caused first deaths among the children. The chance of the father not surviving until his youngest child is self-supporting rises sharply with age (of the father). Data show "chances of death" in typical families and chances of surviving from a specified age to age 65, for males and females. Tables. (Ed)

635. ANONYMOUS.
Declaration by the health ministry on obligatory registration of live and stillborn fetuses, death of an infant up to 7 days of age and death of the mother (24 Nov 1964).
Cesk Pediat 20:67-70, Jan 65. (CZ)

275. ANONYMOUS.
Fatal accidents among city residents.
Statist Bull Metrop Life Insur Co 47:5-7, Feb 66.

The 6 giant U.S. cities (N.Y., Chicago, Detroit, Los Angeles, Philadelphia and Houston) report lower accident mortality than the country as a whole and 101 cities with population under one million. These 101 cities had lower rates than some smaller cities. Motor vehicle fatalities in giant cities, compare favorably with those for the population as a whole. Data for accidents

other than motor vehicles are meager for city residents but falls rank highest among the causes of mortality. These statistics reflect various factors, such as age and sex differences, housing, types of industry, and safety programs. 1 table. (Ed)

276. ANONYMOUS.
Fatal accidents among preschool children.
Statist Bull Metrop Life Insur Co 47:4-6, Aug 66.

Death rates among children, ages 1-4, in U.S., 1950-64, are given. There has been no appreciable improvement in the accident death rates among children since the trend leveled off about a decade ago. Motor accident fatalities dominated the accident mortality for boys and girls. Mortality rates from other causes, fire, drowning, falls, poisoning, etc., are discussed. 1 table. 1 chart. (Ed)

277. ANONYMOUS.
Fatal accidents increasing among men at the working ages.
Statist Bull Metrop Life Insur Co 48:4-6, Feb 67.

The accidental death rate among men ages 15-64 increased from 76.6 per 100,000 in 1961 to 84.1 in 1964, a rise of 10% in 3 years. The principal reason for this increase is the rise in fatalities from motor vehicle mishaps. 2 tables. (Ed)

278. ANONYMOUS.
Future gains in longevity after age 45.
Statist Bull Metrop Life Insur Co 48:8-9, Mar 67.

In the past quarter century, life expectancy at age 45 increased about 1½ years for men and 4 years for women, resulting from decreases in mortality after WWII, with little change during the past 10 years. Future advances will be dependent on progress made against degenerative diseases, particularly cardiovascular diseases and malignant neoplasms. Accidents, pneumonia, and influenza would have little influence on mortality of the population over age 45. If death rates from all causes combined decreased by 30%, the remaining lifetime at this age would increase from 27.1 to 30.9 years for men and from 32.5 to 36 years for women. (Ed)

279. ANONYMOUS.
Geographic variations in longevity after age 65.
Statist Bull Metrop Life Insur Co 48:3-4, Feb 67.

Data on life expectancy at age 65 and survival from age 65-85 (white only). Slight gains from 1949-51 to 1959-61 for white men are compared with substantial gains for white women in every state. Current life expectancy at age 65 is given for 7 foreign countries. 2 tables. (Ed)

280. ANONYMOUS.
Health progress in Canada.
Statist Bull Metrop Life Insur Co 46:5-8, Nov 65.

All ages showed a reduction in mortality between 1953 and 1963, the largest reduction being in younger ages, reflecting reduction in infant mortality, and reduction of death from childhood diseases. Even tuberculosis mortality was reduced by more than four-fifths. In 1963, cardiovascular-renal diseases were responsible for 1/2 of all deaths, cancer for 1/6, and accidents for one out of 14 deaths. Geographic variation of mortality shows Quebec has highest mortality of all the Provinces of Canada. (Ed)

281. ANONYMOUS.
Increase in mortality from cirrhosis of the liver.
Statist Bull Metrop Life Insur Co 46:6-8, Dec 65.

Mortality from cirrhosis of the liver has increased in the U.S., rising from 9.4 per 100,000, 1951-53, to 10.9, 1961-63. Marked differences in trend according to age, sex, and race were noted. Nonwhite mortality was higher than white. Cirrhosis is markedly higher among males than females. The excess male mortality is less marked in nonwhites. About 2/5 of the deaths among nonwhites and a little less among whites were associated with alcoholism. Poor nutrition, a history of viral hepatitis or toxic poisoning can also be causative agents. 1 table. 1 reference. (Ed)

282. ANONYMOUS.
Long-term changes in pneumonia-influenza mortality.
Statist Bull Metrop Life Insur Co 47:7-10, Feb 66.

Mortality rates from pneumonia and influenza in the U.S. were high (70.2 per 100,000) in the 1940's, but due to sulfa drugs and penicillin, the rates decreased to 25.8, 1949-50, and have held approximately that ratio for the past 15 years. Age-adjusted death rates among nonwhites are twice those for whites. Pneumonia and influenza continue to be significant public health problems, and account for 60,000 deaths annually in the U.S. mostly among the aged and children. 1 table. 1 figure. (Ed)

283. ANONYMOUS.
Major causes of childhood mortality.
Statist Bull Metrop Life Insur Co 47:6-9, Mar 66.

In 1940, the death rate at ages 1-14 years was 155 per 100,000; by 1964 the rate was down to 59, a reduction of more than 60%. At least half of the total mortality at ages 1-4 is attributable to three causes—accidents, pneumonia and influenza, and congenital malformations—and to only two causes at 5-14 years—accidents and malignant neoplasms. 1 table. 1 figure. (Ed)

284. ANONYMOUS.
More than 5,000 drownings a year in United States.
Statist Bull Metrop Life Insur Co 46:8-10, May 65.

Accidental drowning (exclusive of that associated with water transport) accounts for more than 5,000 deaths annually in the U.S., with only a slight downward tendency in recent years. Males comprise the large majority of victims. More than half of the drownings occur before age 20; more than half during the 3-months, June-August; about two-thirds in places not designated for recreation or sports. The American Red Cross has estimated that only half of the people in the United States swim well enough to take care of themselves in an emergency. 1 table. (Ed)

285. ANONYMOUS.
Mortality from fires and explosions continues high.
Statist Bull Metrop Life Insur Co 48:6-7, Jan 67.

Fires and explosions continue to be a large problem in the U.S. causing 7,000 deaths each year, an accident toll exceeded only by motor vehicle fatalities and deaths from falls. The young and the old suffer the heaviest mortality from fires and explosions. For each sex and color group, death rates peak at ages 65 and over. 2 charts. (Ed)

286. ANONYMOUS.
Mortality from heart disease: an insurance experience.
Statist Bull Metrop Life Insur Co 3-7, Oct 66.

Heart disease is by far the leading cause of death among insured persons. In 1964-65, 337 per 100,000 male and 173 per 100,000 female policy holders died of heart disease, 86% of arteriosclerotic etiology. Hypertensive heart disease was the second most frequently reported cause of cardiac mortality and rhematic heart disease was third in importance. Congenital heart disease was responsible for about 90% in both sexes under age 5. After adulthood is reached, this cause is of little importance. Mortality statistics from heart disease by etiology for policy holders and for U.S. general population, 1964, are given. 2 tables. (Ed)

287. ANONYMOUS.
Motorcycle accident deaths rising rapidly.
Statist Bull Metrop Life Insur Co 48:3-4, Apr 67.

Motorcycle accident deaths in the U.S. have been rising rapidly since 1961. The concomitant rise in motorcycle registrations results in a decline in the rate of fatalities among motorcycle registrants. 2 tables. 4 references. (Ed)

288. ANONYMOUS.
Recent cancer mortality trends among men.
Statist Bull Metrop Life Insur Co 47:4-7, Jan 66.

In the last decade, male mortality from cancer has increased (among policy holders in Metropolitan Life Ins. Co.) 14% at ages 35-44 and 6% at ages 45-64 yrs. The high rate among men reflects increases in cancer of the lung and bronchus, lymph glands, pancreas, and brain. Some sites showed a reduction: stomach, rectum, genitourinary tract, bladder, liver, and prostate. Hodgkins disease and intestinal cancer showed no change in the decade. Some progress in the control of cancer among men as indicated by the results of a national survey evaluating the end results of therapy in which survivorship has increased. Rates are given. 1 table. (Ed)

289. ANONYMOUS.
Recent mortality trends in the western world.
Statist Bull Metrop Life Insur Co 46:1-4, Aug 65.

In 19 Western European and English-speaking countries, mortality rates were low in 1960. The age-adjusted death rate in these countries averaged 10.3 per 1,000 for males and 7.0 for females. Norway had the lowest rate followed by Netherlands and Spain. Portugal had the highest rate. The U.S. ranked 9th for males but 5th for females. These rates were lower than those observed for preceding years. Finland showed the greatest reduction and the Union of South Africa the least. For males, the least reduction in mortality occurs after age 65. 1 table. (AEd)

290. ANONYMOUS.
Reported frequency of chronic respiratory diseases and causes of death: age variations.
Statist Bull Metrop Life Insur Co 46:6-9, Aug 65.

Age-specific incidence of respiratory diseases as underlying or contributory cause of death among male policyholders whose death claims were paid 1962. Deaths caused by emphysema increased rapidly with advance in age. Presented are data regarding the relative contribution of major chronic respiratory diseases to deaths that were ascribed to other causes. Chronic respiratory diseases accounted for more than 32,000 deaths in the U.S. in 1963, but this greatly understates the extent of their contribution to the death toll. 2 tables. (Ed)

291. ANONYMOUS.
State variations in longevity greatly reduced.
Statist Bull Metrop Life Insur Co 47:4-6, Nov 66.

Life expectancy and annual mortality rates (1959-61) are given for white males and females, by State, at birth, at 25 years of age, and at 45 years of age. Tables. (Ed)

292. ANONYMOUS.
Survival and the life cycle.
Statist Bull Metrop Life Insur Co 47:5-7, Sep 66.

In 1964, average future life expectancy was 68 years for newborn white males and 75 years for females. According to morbidity conditions prevailing in the past decade, 39 out of 40 newborns will survive until the age of 5 years. Chances of surviving through specified periods of life are given. Chart. (Ed)

293. ANONYMOUS.
The chances of reaching age 65.
Statist Bull Metrop Life Insur Co 47:3-5, Feb 66.

Chances of reaching age 65 are 69% for white males at birth and 81% for white females (1964). Life expectancy past 65 is 13 years for white men and 16.3 years for white women. 1 table. (Ed)

294. ANONYMOUS.
The golden wedding anniversary: an increased likelihood.
Statist Bull Metrop Life Insur Co 47:1-2, Jul 66.

Fifty years ago the chances were about 1 in 6 that a man 25 years of age and a girl 19 would both survive 50 years. Chances are now 1 in 3. Joint life expectancy for couples of selected ages according to the mortality among all men and women in the U.S. during 1959-61 is shown. The figures represent the potential duration of marriage and do not allow for annulment or divorce. 1 table. (Ed)

295. ANONYMOUS.
Widows and Widowhood.
Statist Bull Metrop Life Insur Co 47:3-6, May 66.

One out of every 8 American women 14 or older is a widow, according to a March 1965 U.S. Census Report. Widows outnumber widowers 4 to 1. At ages 55-64, 21% of white women and 28% of Negro women are widows, and at ages 65-74, the percentages rise to 43% and 60%. 3/4 of women past 50 will live 20 years or more. 2 tables. (Ed)

296. ANONYMOUS.
Worldwide increase in cancer mortality among men at midlife.
Statist Bull Metrop Life Insur Co 47:1-3, Nov 66.

Age-adjusted death rates for ages 45-64 are given for various cancer sites, and increases in the rates from 1960-61 to 1962-63 for 12 countries. Differences in mortality among sites by country are discussed as well as problems in making international comparisons because of differences in accuracy and diagnosis. 1 table. (Ed)

297. ANONYMOUS.
Worldwide rise in motor vehicle accident fatalities.
Statist Bull Metrop Life Insur Co 47:1-3, May 66.

A report of motor vehicle accident deaths in 20 selected countries. In most, the general trend has been upward, 1959-1963. In U.S. the death rate has increased each year since 1961, having jumped 18% by 1964. Even sharper increases have taken place in some European countries. Degree of motorization accounted for some of the increase. Tables. (Ed)

298. ACHESON, R. M.
Mortality from cerebrovascular disease in the United States.
Public Health Monogr 76:23-40, 66.

Age-adjusted death rates for cerebrovascular disease have declined in recent years; rates for subarachnoid hemorrhage and cerebral embolism and thrombosis have increased so the decline must be due to reductions in incidence of cerebral hemorrhage. Rates are discussed by age, sex, color, geographic regions of the U.S., seasons, and some comparisons are made among countries. Influences of temperature variation and mineral content of drinking water are discussed. 3 tables. 15 figures. 47 references. Addendum. (AEd)

299. ADAMS, M. J., SPICER, C. C.
Recent mortality from breast cancer.
Lancet 2:732-4, 9 Oct 65.

There was unusually steep rise in the number of deaths from breast cancer in females in 1964, in England and Wales. Examination of mortality from this disease over the previous decade and its incidence over the preceding 4 years, has not revealed any single factor that might account for the sudden increase. 4 tables. 1 figure. (AEd)

300. ALDERSON, M. R.
Investigation of mortality. Referral to hospital among a representative sample of adults who died.
Proc Roy Soc Med 59:719-21, Aug 66.

590 out of 2,243 deaths in the sample were not referred to hospitals. Data are given showing distribution of nonreferrals by age, social class, marital status, month of death, and family physician certification. Various reasons for nonreferral are discussed. 4 tables. 1 reference. (Ed)

301. ALLAN, T. M.
An autumn peak of lung cancer deaths.
Lancet 2:387-8, Aug 65.

Data of 200 cases of lower respiratory (lung) cancer deaths in Glasgow (1953-62) and 3,733 cases in Western Scotland (1960-61) and data from England and Wales (1953-62) all demonstrate an autumn peak in deaths–between August and December. These findings are in contrast to those for upper respiratory (gums, mouth, pharynx, and larynx) cancer and non-neoplastic respiratory disease deaths where the peak is highest between January and March. 2 tables. 4 references. (AEd)

302. ALLAN, T. M.
Seasonal distribution of deaths from cancer.
Brit Med J 5488:673-4, 12 Mar 66.

In England and Wales, 1912-1920 (excluding 1918-19), it was noted that deaths from cancer were anomalous in being least frequent in the 2nd quarter of the year and most frequent in the 4th quarter. In 1933, this was confirmed by German data of 1926-31, and again in England and Wales, 1956-63. In England and Wales, 1956-63, deaths from cancer, female deaths from benign tumors, simple goiter, and avitaminoses (in females) showed low ratios of spring to autumn deaths. Opposite ratios were found for thyrotoxicosis and nontoxic nodular goiter. A vitamin lack is suggested in the low frequency of spring cancer deaths on the basis of experimental evidence of the inhibiting effect of vitamin lack on tumor growth. 3 tables. 3 references. (AEd)

303. ANTONOVSKY, A.
Social class, life expectancy and overall mortality.
Milbank Mem Fund Quart 45:31-73, Apr 67.

Findings from about 30 studies in various countries and in various years (one in 1687) are discussed. It is concluded that in almost every one, social class differences were found in mortality. Evidence is given that the differential is narrowing. It is hypothesized that under conditions of extremely high or low mortality, class differences will be small. 17 tables. 67 references. (Ed)

304. ASHLEY, D. J.
The distribution of lung cancer and bronchitis in England and Wales.
Brit J Cancer 21:234-59, Jun 67.

Mortality from lung cancer and bronchitis is compared for counties of England and Wales. A positive correlation is found between bronchitis mortality and air pollution and between lung cancer mortality and population density. In areas where coal and textile industries are prominent there is an excess of bronchitis and a deficit of lung cancer which cannot be attributed to the degree of air pollution or population density. Inhalation of dust confers protection on the lung against carcinogenic substances. It is further suggested that the dusty lung is in a state of enhanced immunological competence and is better able to destroy the first few cells which have undergone malignant transformation than in the normal lung. The mechanism is postulated as the reason for the low cancer death rate among coal miners. 12 tables. 1 figure. 15 references. (AEd)

305. AUERBACH, O., HAMMOND, E. C., GARFINKEL, L.
Smoking in relation to atherosclerosis of the coronary arteries.
New Eng J Med 273:775-9, 7 Oct 65.

A study of the degree of atherosclerosis in the coronary arteries of 1,372 men who died of diseases other than coronary heart disease. The smoking habits of these men were ascertained by interviews with their families. The percentage with an advanced degree of coronary atherosclerosis was higher among cigarette smokers than among nonsmokers and increased with the amount of cigarette smoking. Both among nonsmokers and among cigarette smokers, the percentage of men with advanced coronary atherosclerosis increased with age. 5 tables. 7 references. (AA)

306. BAILAR, J. C., 3RD, GURIAN, J. M.
Month of birth and cancer mortality
J Nat Cancer Inst 33:237-42, Aug 64.

There is a well known correlation between the occurrence of cancer in laboratory animals and infection at an

early age with certain viruses. This correlation, combined with the seasonal distribution of most human viruses, led to a search for differences in cancer incidence or mortality rates among persons born in different months. No such differences could be established for either sex, for any age group, nor for any of the sites or site groups studied. 4 tables. References. (AA)

307. BAILAR, J. C., YOUNG, J. L., JR.
Oregon malignancy pattern and radioisotope storage.
Pub Health Rep 81:311-7, Apr. 66

Because of recent concern over possible contamination of the Columbia River by radioactive products from Hanford Atomic Storage Preserve, an independent study was made to determine cancer mortality trends in Washington and Oregon, 1934-1963. Results showed lower cancer rates than for the whole U.S. Leukemia rates are high but were high before the Atomic Project started. No evidence of excess risk was found. 5 tables. 9 references. (Ed)

308. BAIRD, V. C.
Effects of atmospheric contamination on cancer mortality in petroleum refinery employees.
J Occup Med 9:415-20, Aug 67.

Mortality rates from lung cancer, 1935-63, among 15,437 employees of Humble Oil and Refining Company are compared with producing, transportation, sales, and exploration groups, and with the adult population of the same geographic area. There is no greater incidence of death from lung cancer among these refinery employees than among other employees with less exposure to air pollution or among persons in the general population. 4 tables. 1 figure. 8 references. (AEd)

309. BEHM, H., BACAZ, A., GUTIERREZ, H.
Recent mortality trends in Chile.
Vital and Health Statistics. Series 3, No. 2, Apr 1964.

The trend in mortality rates by sex, age, and selected causes has been studied in Chile for 1933-1960: (1) leveling of the death rate since 1953, both sexes in age groups under 50; (2) decline in mortality from 1937 to 1953 due largely to decrease in death rates for infective diseases, while in recent years the decline has slowed or rates have increased; (3) other causes of death with long term constant or slightly increasing trend have become progressively important. Health programs, even though continuing to expand, have not been able to provide adequate services for a large segment of the population with poor socioeconomic conditions. 8 tables. (AEd)

310. BIORCK, G., BOSTROM, H., WIDSTROM, A.
On the relationship between water hardness and death rate in cardiovascular diseases.
Acta Med Scand 178:239-52, Aug 65.

A study on the relationship between deaths from cardiovascular diseases and various parameters in drinking water in 34 Swedish towns during 1951-60. The figures indicate a highly significant negative correlation between the calcium ion concentration and the statistical group 'other degenerative heart diseases' (ICD 422). Essentially the findings confirm results of similar studies from other countries. It also raises the problem of the medical significance of this diagnosis group. 10 tables. 5 figures. 16 references. (AA)

311. BIRRELL, J. H.
A note on automobile–tram (streetcar) fatal accidents and alcohol in the city of Melbourne.
Med J Aust 2:1-4, Jul 67.

A series of 25 fatal collisions between motor vehicles and trams (streetcars) is analyzed. 19% of the collisions were head on, the cars veering into the wrong tram track. The car drivers were responsible for all the collisions, 22 having significant blood alcohol levels and only one having a blood level below 120 mg. per 100 ml. The drivers were all male, commonly aged 24 years or less, were largely unskilled, and included a significant number of known alcoholics and drivers with criminal records. 9 figures. 8 references. (AA)

879. BLACKBURN, H., PARLIN, R. W.
Antecedents of disease. Insurance mortality experience.
Ann NY Acad Sci 134:965-1017, 28 Feb 66.

312. BOLANDER, A. M.
The pattern of mortality in Sweden
Lakartidningen 64:1333-42, 29 Mar 67. (SW)

No English summary.

313. BRADAC, O.
The mortality of children below the age of 14 in some countries in 1957 and 1961.
Cesk Pediat 22:249-56, Mar 67. (CZ)

No English summary.

314. BRANOWITZER, Z.
Dynamics of vital statistics in the population of Poland and in certain European countries in 1950-1960.
Zdrow Publiczne 4:467-77, Apr 67. (POL)

Discussion of mortality in Poland and comparison with that in several European countries. Analysis is based on principally on 1950-1960 data. Mortality of children in the first year of life is analyzed, particularly in two age groups, 7-27 days and 6-11 months. (AEd)

315. BUXBAUM, R. C., COLTON, T.
Relationship of motor vehicle inspection to accident mortality.
JAMA 197:31-6, 4 Jul 66.

The role of mechanical failure in automobile accidents is examined by comparing motor vehicle mortality among men, ages 45-54, in states which do and do not require motor vehicle inspection. Inspection is associated with lower mortality, and this association prevails under varying economic, geographic, and demographic conditions. Comparison of white with nonwhite death rates reveals that nonwhites are at consistently greater risk. 3 tables. 5 figures. 18 references. (Ed)

316. CAMPBELL, H.
Cancer of the cervix–survival. Comparative study of 5-year survival rates from cancer of the cervix in 14 countries from 1953-1957 followed to 1962.
J Obstet Gynaec Brit Comm 73:27-40, Feb 66.

A review of results of treatment of carcinoma of uterus and vagina shows that survival rates in British clinics are poor. Overall mortality of the disease in the United Kingdom when compared with 14 other countries is not high, but 5 year survival rates are lower. International study is recommended. 9 tables. 3 figures. 5 references. (Ed)

317. CAMPBELL, H.
Changes in mortality trends: in England and Wales, 1931-1961.
Vital and Health Statistics. Series 3, No. 3, 1965.

This analytical study of mortality trends in England and Wales examines the effects of certain economic, social, and medical changes on mortality and the prospects for future changes in mortality. Allowing for artifacts of diagnosis and coding, a clear pattern is seen of declining mortality from infectious and respiratory diseases, little change for neoplastic diseases and violence, and gradual increase for vascular diseases. In England and Wales the average age of the population is still increasing so that the death rate will rise in the future unless major changes occur in the prevention and cure of coronary artery disease. Except for reduction in cigarette smoking there is no major advance in medicine or public health in prospect that is likely to alter the main trend in mortality, which has shown no improvement in the last few years. Tables. (AA)

318. CASE, R. A.
Demography and the cancers.
Sci Basis Med Ann Rev 71-90, 66.

Age-standardized death rates are given for all forms of cancer in England and Wales, 1851-1960, Japan, U.S.A., England and Wales, and Chile, 1951-1953; for lung cancer in males (England and Wales), 1911-1954, and for tumor of brain (England and Wales), 1911-1960. Also included are data on tumors of bladder in workers exposed to carcinogenic agents, and stomach cancer in females. Environmental and occupational hazards are discussed and found to be closely related to cancer development. Charts. 44 references. (Ed)

319. CIUCA, A., CRESPIN, R., JUCOVSCHI, V.
The geographic distribution of longevity in the People's Republic of Rumania.
Rev Hyg Med Soc 12:341-53, Jun 64. (FR)

The percentage of very old people varied from 3 to 19 per 1,000 inhabitants. The highest density was in areas with altitude 500-1,000 m.; the average in hilly areas, and the lowest in lowland areas. According to the 1956 census there were 487 centenarians (27 per one million inhabitants), the highest rate being found in the southern part of the country where as a rule very old people are scarcer. The female-male ratio was 160:100, it varied between 1:3 and 1:4 in areas with lower longevity. A close relationship appeared to exist between socioeconomic factors, environmental conditions, food habits, and longevity. (AEd)

320. COHEN, E.
Suicide in San Francisco: reported and unreported.
Calif Med 102:426-30, Jun 65.

1,664 persons killed themselves, 1956-1964, in San Francisco, according to coroners' records. The most frequently reported means was oral ingestion of toxic substances—a deviation from national statistics which report shooting the most frequent method. Explanation for the deviation is attributed to more valid mortality statistics of San Francisco. Unreported suicide may be largely suicide by ingestion, unrecognized because of lack of post-mortem studies. 5 tables. 16 references. (AEd)

321. COMSTOCK, G. W., KENDRICK, M. A., LIVESAY, V. T.
Subcutaneous fatness and mortality.
Amer J Epidem 83:548-63, May 66.

Subcutaneous fat was measured for 24,390 residents of Muscogee County, Georgia who had participated in a community survey for tuberculosis in 1946. For all race-sex-age groups combined, mortality over 14 years was about 12% greater for the fattest persons. Mortality from diabetes was most strikingly associated with fatness, followed in order by coronary heart disease, accidents, strokes, and hypertension. Tuberculosis and other respiratory diseases showed the opposite trend. No relationship with fatness was noted for cancer and the residual causes of death. Excessive mortality among fat persons was generally more marked for whites than for Negroes. In white males over age 55, fatness was not associated with increased mortality. 4 tables. 6 figures. 19 references. (AEd)

322. CORONE, J., ROUQUETTE, C.
Mortality due to accidents in the young from 1 to 14 years of age in 1961-1962-1963.
Bull Inst Nat Sante 21:261-73, Mar-Apr 66. (FR)

Accidents cause the largest number of deaths among children. Motor vehicles lead as causes of accidents, followed by drowning and burning. Analysis of fatal accidents among children in France is by age, sex, years, and type of accident. Statistics for other countries are also presented. 14 tables. (AEd)

39. CUTLER, S. J.
The use of tumor registry data.
Calif Med 106:98-107, Feb 67.

323. CUTLER, S. J., HEISE, H., EISENBERG, H.

Childhood leukemia in Connecticut, 1940-1962
Blood 30:1-25, Jul 67.

Data on 472 leukemia patients under age 20 seen in Connecticut hospitals, 1940-1962. Survival experience improved, 1940-1950; since then there has been little change. Patients with acute lymphocytic leukemia showed greater survival than those with acute myelogenous leukemia. When survival increased rapidly, the rate of leukemia incidence increased only moderately and with little change with respect to characteristics such as initial white blood cell count and the presence of bleeding and hemorrhage. After 1950, widespread use of chemotheraphy and change in specific agents used were not associated with further improvement in survival. New treatment regimens since 1962 will be reflected in later studies. 17 tables. 7 figures. 13 references. (AEd)

324. DAMON, A., MCCLUNG, J. P.
Previous pulmonary disease and lung cancer: a case-control study.
J Chron Dis 20:59-64, Feb. 1967.

Among more than 17,000 men examined medically and anthropometrically at Harvard University between 1880 and 1920, 130 had died of lung cancer by 1 January 1966. Each lung cancer decedent was matched with the next man of the same age to be examined. Mean age at examination was 19.9 years. Of the controls, 87 had died and 43 were still alive on 1 January 1966. The lung cancer decedents and the controls did not differ in the number or nature of prior pulmonary diseases reported

during their medical examination at Harvard. Among the controls, significantly more of those without early pulmonary disease than of those with early pulmonary disease were still alive. 3 tables. 17 references.

325. DEANE, M.
Epidemiology of chronic bronchitis and emphysema in the United States. II. The interpretation of mortality data.
Med Thorac 22:24-37, 65.

Death certificates are a convenient source of information for epidemiological studies, but their usefulness is limited by the manner in which data are recorded and coded. This is particularly relevant with respect to tabulations of death by single cause. Multiple cause of death coding is one method of increasing the value of mortality data. Comparisons of mortality representing different geographic areas or different periods of time must be interpreted in terms of the limitations of the basic data. 3 tables. 5 figures. 12 references. (AA)

326. DENOIX, P.
On cancer mortality and morbidity in various countries.
Un Med Canada 94:430-7, Apr 65. (FR)

Morbidity and mortality rates for different cancers are shown for 1960-61 and 1952-53, by sex, in Japan, U.S. (white and nonwhite), Finland, Denmark, England, and Wales (mortality only). Data on cancer morbidity are more accurate than data on cancer mortality. The frequency of cancer is linked to aging of a population. Current research in France is discussed. 5 tables. (AEd)

327. DOLL, R.
Worldwide distribution of gastrointestinal cancer.
Nat Cancer Inst Monogr 25:173-90, Jul 67.

A worldwide comparison of mortality and incidence rates for cancer of the esophagus, stomach, colon, and rectum, by sex and ages 40-59 and 45-64. Problems of international comparisons are discussed including reliability of data on cancer site and comparability of age distributions among countries. 10 tables. 3 figures. 12 references. (Ed)

328. DOLL, R., HILL, A. B.
Mortality of British doctors in relation to smoking: observations on coronary thrombosis.
Nat Cancer Inst Monogr 19:205-68, Jan 66.

A followup of British doctors whose smoking habits had been previously recorded. 1,376 deaths occurred over 10 years in which the "underlying cause" was coronary disease. These deaths were reclassified into 3 groups according to combinations of diseases referred to on the death certificate: (1) 35 cases of thrombosis with another disease related to cigarette smoking (closely related to smoking), (2) 721 in which thrombosis was unqualified (related to smoking), (3) 613 in which thrombosis was accompanied by some other disease (unrelated to smoking). It is concluded that a large number of deaths from coronary thrombosis are associated with cigarette smoking but another large number of thrombosis deaths result from association with some disease and are not related to cigarette smoking. 3 tables. 11 references. Appendix. (AEd)

329. DORN, H. F.
Underlying and contributory causes of death.
Nat Cancer Inst Monogr 19:421-30, Jan 66.

Problems of using the International Classification of Diseases for mortality and morbidity statistics are discussed. The author proposes that the list be a classified list of single diagnostic terms as used in medical practice; that methods of coding be considered a related but separate problem; and that the necessity for coding more than one diagnosis, when 2 or more are entered on death certificate, be recognized. Tables illustrate that a single diagnosis is not adequate in collecting death statistics. The only disease chosen as the main one in 90% of the deaths is cancer. A combination of selected diagnoses entered on death certificates is now being planned. 2 tables. (Ed)

330. DRAGSTED, P. J., LAURITZEN, H. I., SCHLEIMANN, R.
Cancer of the lung as a cause of death in patients with pulmonary symptoms. A followup study.
Ugeskr Laeg 128:81-4, 20 Jan 66. (DAN)

About 1,200 patients with pulmonary disorders admitted to 1 medical department, 1939-43, were followed for 10 to 15 years to study the lung. Cancer of the lung was the cause of death in approximately 10% of the males and 2% of the females who died during the period of observation and who were over 40 years of age at the time of admission. In male patients with pulmonary disease as the cause of death, carcinoma of the lung ranked next to acute infections but nearly as many patients died from bronchitis/asthma/emphysema, which was the main cause of death in the corresponding group of female patients. No correlation was demonstrated between other pulmonary diseases and cancer of the lung. 2 tables. 1 figure. 4 references. (AEd)

331. DROKOVA, S., DVORAKOVA, M.
The mortality of children aged 1-14 years in Czechoslovakia during 1952-1963.
Cesk Pediat 21:935-45, Oct 66. (CZ)

Analysis of mortality of children ages 1-14 in the Czech Socialist Republic, 1952-63. Mortality from all causes has declined significantly mainly because of reductions in infections, parasitic, and respiratory tract mortality. Accidents and poisonings are the most common causes of death and they have not declined as rapidly. Small villages had the highest mortality. Regional and seasonal variations are discussed. (AEd)

332. EDWARDS, J. E.
Pathology of sudden death.
Minnesota Med 48:1519-35, Nov 65.

Sudden death may be caused by lesions involving the nervous, respiratory, or circulatory systems. Lesions of the circulatory system numerically represent the largest group of conditions that may be responsible for sudden death. Those processes of the circulatory system which may cause sudden death may be subdivided into the following four categories: (1) myocardial failure, (2) cardiac compression, (3) hemorrhage, (4) obstruction. The most common single basis for sudden death is that of myocardial failure which, in turn, is most often brought about by an arrhythmia in individuals with coronary atherosclerosis. 2 tables. 16 figures. 11 references. (AA)

333. EKBLOM, B.
On mortality in recent widows and widowers.
Svensk Lakartidn 61:3343-50, 28 Oct 64. (SW)

No English summary.

334. FEJFAR, Z., BADGER, D., GRAIS, M.
Epidemiological aspects of thrombosis and vascular disease.
Thromb Diath Haemorrh 21:Suppl 21:5-15, 66.

Mortality data reveal markedly reduced incidence of pulmonary embolism among certain African and Asian populations and an elevation of cerebrovascular disease coupled with a small incidence of ischemic heart disease among the Japanese compared with data for Europe and North America. Further conclusions concerning the magnitude of thrombo-embolic disorders are made difficult by a lack of valid comparable data. Studies of autopsy material by WHO indicate that thrombo-embolism is considerably underdiagnosed by clinicians. Nevertheless, further epidemiological studies are indicated among those groups differing markedly in incidence of thrombo-embolic manifestations. 6 figures. 13 references. (AEd)

335. FINGERLAND, A., KOPECNY, J.
Contribution to the etiology and pathology of lung cancer.
Sborn Ved Prac Lek Fak Karlov Univ 9:437-41, 66.

Lung cancer was found in every 15th autopsy in a Czechoslovakian hospital. In men, every 9th case had lung cancer. The mean age of the deceased was 61.4 years, 6.4 years less than the average life span of men in Czechoslovakia. Lung cancer is 7 times more frequent in men than in women. Positive smoking history was found in 96.5% of men who died from lung cancer, which highly exceeds the percent of smokers in the male population. A smoker affected with pulmonary carcinoma has smoked approximately 300,000 cigarettes during his lifetime. Pulmonary cancer was found in 16% of agricultural and forestry workers which corresponds to the share of the agricultural population in the East Bohemia Region and opposes the hypothesis that the urban pollution of the atmosphere is the decisive factor for the etiology of pulmonary carcinoma. The clinical diagnosis was correctly made only in 62% of the cases. 2 tables. 5 references. (AEd)

59. FOOTE, F. M., EISENBERG, H., HONEYMAN, M. S.
Trends in cancer incidence and survival in Connecticut.
Cancer 19:1573-7, Nov 66.

336. FRAUMENI, J. F., Jr., MILLER, R. W.
Epidemiology of human leukemia: Recent observations.
J Nat Cancer Inst 38:593-605, Apr 67.

Recently leukemia mortality has declined for the U.S. white population but not for the U.S. nonwhite or English populations. An age peak at 3-4 years has emerged for Japanese and U.S. nonwhite children similar to that previously found among the U.S. white population and in England. Neither a decrease in medical X-ray exposure nor an hypothesis of infectious patterns was supported by the data available. Effects of ionizing radiation, chemicals, and cytogenic defects on predisposition to leukemia are discussed. 3 tables. 5 figures. 90 references. (AEd)

337. FREDERIKSEN, H.
Determinants and consequences of mortality and fertility trends.
Pub Health Rep 81:715-27, Aug 66.

Discussion of the relationship between fertility, mortality, and economic measures of the level of living based on data from 21 countries and case histories of 6 countries. Reduction in fertility is seen as a consequence of a reduction in mortality which in turn is related to an increase in levels of living. The latter also directly augments reductions in fertility. 8 tables. 6 figures. 12 references. (AEd)

338. FUCHS, V. R., LEVESON, I.
Motor accident mortality and compulsory inspection of vehicles.
JAMA 201:657-61, 28 Aug 67.

The relation between motor accident mortality and compulsory vehicle inspection is examined by regressing age-standardized mortality ratios on inspection and other variables across states. Inspection is negatively related to mortality. The effect of inspection appears to be greater in: states with more than one annual inspection, in low income than in high income states, and in high education than in low education states. Dollar estimates of the benefits of inspection are found to exceed estimated costs; the difference, however, is not as large as often alleged. 5 tables. 5 references. (AEd)

65. GALICHEVA, N. A.
On the effect of working and living conditions on the occurrence of myocardial infarct.
Sovet Zdravookhr 25:39-43, 66. (RUS)

339. GARCIA-PALMIERI, M. R., FELIBERTI, M., COSTAS, R., Jr.
Coronary heart disease mortality—A death certificate study.
J Chron Dis 18:1317-23, Dec 65.

A study of all deaths in the 20-64 age group in the San Juan Metropolitan area, May-October 1963. The methodology is reported. 53% of all deaths were autopsied. Revised figures for CHD deaths still reveal a lower age-specific mortality rate in the area compared with the rates reported in the U.S. 8 tables. 5 references. (AEd)

340. GLASS, R. L.
Mortality of New England dentists, 1921-1960.
Environ Health Ser (Radiol Health) 18:1-70, May 66.

An epidemiological study to determine the mortality of dentists in comparison with that of the general population and of physicians. A cohort of 11,478 white, male dentists, practicing in New England, 1921-1960, has been identified. The age, date of entry to risk, and survivorship status of each dentist have been determined and age-distributed person-years at risk computed. Mortality from all causes has been less than expected from death rates of the New England white male population and U.S. physician population, but greater than that of the general population. Suicide is the only cause of death with greater than expected mortality throughout the study period. No relationship between mortality and exposure to ionizing radiation was observed. 62 tables. 80 references. (AEd)

341. GOLDSTEIN, S.
Jewish mortality and survival patterns: Providence, Rhode Island, 1962-1964.
Eugen Quart 13:48-61, Mar 66.

A survey of mortality in Providence shows that Jews, especially those in the upper socioeconomic brackets, have lower mortality than other religious groups up to age 64. At ages 65 and over, mortality among Jews increases from the usual diseases—cardiovascular, and malignant neoplasms. Surveys in St. Louis, New York, and Canada showed similar results. Data on religious affiliation are difficult to obtain and place of burial was used as an indication. (Ed)

342. GOLUBCHIKOVA, B. M.
Seasonal variations of cancer mortality.
Vop Onkol 11:49-51, 65.

Study of seasonal variations of cancer mortality among the populations of cities of Ukranian SSR in 1962 revealed a general tendency of increasing mortality during summer months and decreasing during winter months, with the exception of genital cancer in women. Mortality from the latter is the highest during the winter season and lowest in autumn. Rates by season and month are given. 3 tables. 8 references. (AEd)

343. GORDON, P. C.
The epidemiology of cerebral vascular disease in Canada: An analysis of mortality data.
Canad Med Ass J 95:1004-11, 12 Nov 66.

Analysis of cerebral vascular disease mortality for Canada. Since 1950 there has been a gradual decline in the age-sex-specific death rate due to vascular lesions of the central nervous system which has been more prominent in females. 5-year average age-sex-specific rates, 1900-64, show increase of mortality with age. Mortality rates vary by province. In the years 1950-64 there has been a 21% decline in mortality due to intracranial hemorrhage, a 53% decline in hypertensive diseases, a 24% increase in cerebral embolism and thrombosis, and an 8% increase in athersclerotic heart disease. There is only inconsistent support for the hypothesis that these associated trends are due to common etiologic determinants. To what extent these trends and differences can be attributed to coding, certification, and diagnostic practices and to what extent to changing incidence and prognosis is not clear. 9 tables. 5 figures. 19 references. (AEd)

344. GORWITZ, K.
Mortality among alcoholics.
Maryland Med J 16:82-3, Jun 67.

6,853 patients with a primary diagnosis of alcoholism were treated in Maryland facilities and followed for 3 years, 1961-1964. 5% died under care. Ages and causes of death are given. 30% died of heart disease, 13% cirrhosis of the liver. Nearly 1/3 the alcoholics over age 65 were dead at the end of observation period. The figures indicate that major physical illnesses are frequent occurrences among these alcoholics. 1 table. (AEd)

345. GREENWALD, I.
Studies of exophthalmic goiter. I. The relation of exophthalmic goiter to simple goiter. II. Increases in mortality from exophthalmic goiter. III. Changes in the distribution of ages at death from exophthalmic goiter.
J Chron Dis 20:255-68, May 67.

Increases in mortality from exophthalmic goiter after 1920 have not been shown to be related to changes in the amounts of iodized salt or of other sources of iodine consumed. Following a sudden increase in mortality in the early 1920's, there was a progressive change toward older and older groups. Relative mortality at different ages in the early 1920's remained the same for 25 and 30 years as the members of these groups grew older. The evidence suggests that most of these older persons may have acquired the disease at the same time. Thus, the decrease in mortality after 1947 may be due to the fact that nearly all affected had died in the interval. It is hypothesized that the common worldwide event may be the influenza pandemic or the return of soldiers from WWI who may have brought home a new strain of infectious agent. 10 tables. 22 references. (AEd)

346. GRIFFITH, G. W.
Investigation of mortality. Mortality of males from cancer of three sites in seven cities.
Proc Roy Soc Med 59:713-8, Aug 66.

Study of recent mortality of adult males from cancer of larynx, lung, and urinary bladder in 7 widely separated cities, from data collected in the Inter-American Investigation of Mortality. (The cities are: Bristol, Cali, Caracas, La Plata, San Francisco, Santiago, Sao Paulo.) The results are based on validated diagnoses. Lung cancer mortality is high in Bristol and La Plata and low in 4 other Latin American cities. In La Plata an unusually high mortality was also observed for cancer of larynx and urinary bladder. Qualitative differences between tobaccos is tentatively advanced as a hypothesis on which to base further studies. 12 cities with 42,000 lung cancer deaths among males will be considered. (AEd)

347. GRIFFITH, G. W.
Mortality from cancer of the alimentary tract in seven cities.
Nat Cancer Inst Monogr 25:259-74, Jul 67.

The procedures adopted in the Inter-American Investigation of Mortality to study causes of death of adults in 12 cities are briefly described. Results with respect to malignancy of the esophagus, stomach, intestine, and rectum are presented for 7 widely separated cities (LaPlata, Sao Paulo, Cali, Santiago, Bristol, Caracas, and San Francisco). Age-adjusted rates based on death certificates are compared with rates based on the final assignment made from available information about each deceased individual. The assignment was confirmed in 85% and changed in 15% of the death certificates. The overreporting was compensated by addition of certificates on which death was originally assigned to other causes. 11 tables. 2 figures. 10 references. (AEd)

348. GROSSO, E., BRAGA, A., CALVI, L.
Mortality from diseases of the respiratory tract in Italy from 1913 to 1959. I. Mortality from malignant tumors and bronchitis.
Riv Ital Ig 25:352-91, Sep-Dec 65. (IT)

Mortality from respiratory cancer increased since 1945 in males over age 50 in Italy. The districts with the greatest increases were mainly in the northern part, while the smallest increases were in the central and southern parts of Italy. Mortality was higher in industrialized provinces and lower in rural provinces. Mortality from bronchitis decreased until 1952 and then increased, mostly among men and women over age 50. Larger towns seem to have higher bronchitis mortality than

smaller towns in each province. Mortality rates from respiratory cancer and bronchitis in Italy and in other European countries have not shown any relationship to the economic and industrial level of the country. 12 tables. 8 figures. 22 references. (AEd)

349. GSELL, O., STROBEL, M.
The development of cancer mortality in Switzerland 1910-1962. Incidence of organ-specific cancers 1962—Changes in relation to age and sex since 1910.
Schweiz Med Wschr 95:1165-7, Concl, 28 Aug 65. (GER)

Age-sex changes in cancer mortality in Switzerland since 1910 are examined. The proportion of all deaths has risen from 8 to 20% in last 50 years. Men show a 24-fold increase of cancer of the lung, which is one-third of all male cancer in the 40-60 year age groups. Men show a 2% higher rate for lung cancer than women. 13 references. (AEd)

350. GURALNICK, L.
Some problems in the use of multiple causes of death.
J Chronic Dis 19:979-90, Sep 66.

An exploratory study of the problems in the development of multiple cause data was undertaken, based on a one-third sample of deaths in the U.S. in 1955. The study produced extensive tabulations of data useful in health programs and at the same time revealed clearly the fundamental research needed to develop a new series of mortality data based on all conditions related to death. 9 tables. 1 figure. 7 references. (AA)

832. GURALNICK, L., JACKSON, A.
An index of unnecessary deaths.
Pub Health Rep 82:180-2, Feb 67.

351. GWYNNE, J. F.
Fallacies in cancer mortality statistics.
New Zeal Med J 64:146-51, Mar 65.

1,657 hospital necropsies have been reviewed to assess the incidence of cancer, and the accuracy of its clinical diagnosis. 443 tumors occurring in 432 patients have been analyzed for diagnostic errors. Incomplete or erroneous diagnoses were reported in 33% of the malignant lesions found at necropsy, a result similar to figures reported overseas. Errors occurred frequently in common neoplasms. Silent tumors formed a significant group. A much higher national autopsy rate must be achieved before investigations into the etiology, epidemiology, and prevention of cancer can become effective. 4 tables. 1 figure. 7 references. (AEd)

352. HACKL, H.
Research on mortality during the course of the year.
Oeff Gesundheitsdienst 27:10-4, Jan 65. (GER)

Statistical computations of 9,000 postmortem examinations and 250,000 deaths, in the city of Vienna, showed that the seasonal rhythms of death depend on the irradiation of the sun. This interrelation between length of daylight and mortality is, in the case of biological death as well as death due to old age or its consequences, very distinctly indicated. 1 table. 3 figures. 8 references. (AA)

353. HAGSTROM, R. M., SPRAGUE, H. A., LANDAU, E.
The Nashville air pollution study. VII. Mortality from cancer in relation to air pollution.
Arch Environ Health (Chicago) 15:237-48, Aug 67.

A study of cancer mortality in relation to air pollution and socioeconomic factors for Nashville SMSA, 1949-1960. Certain pollution indexes were positively correlated with cancer mortality for specific sites in a given socioeconomic group. For constant air pollution exposure, socioeconomic status was inversely related to cancer mortality for specific sites and directly related for other sites. Age-adjusted death rates are discussed by sex, color, socioeconomic status, and pollution level within the SMSA for various cancer sites. 3 tables. 5 figures. 28 references. (AEd)

354. HAMMOND, E. C.
Smoking in relation to the death rates of one million men and women.
Nat Cancer Inst Mongr 19:127-204, Jan 66.

Study of 43,221 deaths among 440,558 men and 562,671 women, ages 35-84, who enrolled in prospective study in 1959 and answered questions about their smoking habits. Death rates of both sexes were higher among those with a history of cigarette smoking than among those who never smoked regularly. The differential was greater among men than women. Death rates of current cigarette smokers increased with number smoked per day, years smoked, and degree of inhalation. Higher death rates were found for many diseases including coronary heart diseases, cerebral vascular lesions, emphysema, cancer of the lung, and cirrhosis of the liver. 22 tables. 22 references. Appendix including 19 tables. (AEd)

355. HARO, A. S.
Mortality in Finland versus other scandinavian countries 1948-1964.
Duodecim 82:1136-51, 66. (FIN)

Finland is similar to other scandinavian countries in culture, economy, quantity of health services, and other variables. Mortality, however, is considerably higher in Finland, mostly in men of middle and old age and higher for practically all major causes of death. Explanations for the excess in mortality are discussed including the possibility of different habits of the population in utilization of health services. 10 tables. 8 figures. 12 references. (AEd)

356. HAYBITTLE, J. L.
Cigarette smoking and life expectancy.
Brit J Prev Soc Med 20:101-4, Apr 66.

Life expectancies at age 40 have been calculated for men in various smoking categories, using data from 6 prospective studies. It is shown that the life expectancy of nonsmokers is about 6 years greater than that of heavy smokers (more than 21 cigarettes a day). The implications of this finding are discussed in the light of a number of possible hypotheses about the effect of smoking on life expectancy of the individual smoker. 14 references. (AA)

357. HILL, G. B., ADELSTEIN, A. M.
Cohort mortality from carcinoma of the cervix.
Lancet 2:605-6, 16 Sep 67.

Introduction of mass cytological screening will hopefully lead to fewer deaths from cervical cancer (statistics from

England and Wales are encouraging). Crude death rates and standardized mortality rates show a decline, 1950-1965, apart from the influenza peak in 1958. The age-specific death rates, however, reveal that these statistics are weighted by older age groups. Upward trends were seen for ages 30-39, 40-49, and 50-59. This suggests a cohort or generation pattern. If these cohort trends are confirmed when more data are available, possible underlying factors (e.g. sex practices) may be involved. (Ed)

96. HINKLE, J. E. JR., BENJAMIN, B., CHRISTENSON, W. N.
Coronary heart disease. 30-year experience of 1,160 men.
Arch Environ Health (Chicago) 13:312-21, Sep 66.

102. HUSZAR, T.
Statistical study of morbidity and mortality through mellitus diabetes in the Socialist Republic of Romania.
Sante Publique (Bucur) 8:433-9, 1965.

358. JABLON, S., ANGEVINE, D. M., MATSUMOTO, Y. S.
On the significance of cause of death as recorded on death certificates in Hiroshima and Nagasaki, Japan.
Nat Cancer Inst Monogr 19:445-65, Jan 66.

Study of mortality among survivors of the atomic bombings of Hiroshima and Nagasaki by the Atomic Bomb Casualty Commission and the Japanese National Institute of Health. An autopsy procurement program begun in 1961 has reduced the bias inherent in selection for autopsy as well as the rate of procurement. Death certificate diagnoses are compared with autopsy findings by diagnostic category, sex, age, place of death, and distance from hypocenter. 8 tables. 24 references. (Ed)

359. JALAVISTO, E.
Determining sex mortality causes in adults.
Geron 16:47-57, 64. (FIN)

No English summary.

834. JOOSSENS, J. V.
The parameters of atherosclerosis mortality.
Acta Cardiol (Brux) Suppl 11:145-167, 65.

360. KAHN, H. A.
The Dorn study of smoking and mortality among U.S. veterans: report on eight and one-half years of observation.
Nat Cancer Inst Monogr 19:1-125, Jan 66.

In an 8½-year followup of 293,658 persons holding U.S. Government life insurance policies, the increased mortality risk associated with cigarette smoking was found to be higher in recent years than in the initial years of the study. For the entire period, mortality ratios of current cigarette smokers compared with those who never smoked are 1.7 for death from all causes, 10.9 for lung cancer, 12.2 for emphysema without bronchitis, and 1.6 for coronary heart disease. Risk was related to amount smoked and duration of smoking. Comparisons of age-specific probabilities of dying were made among pipe, cigar, and cigarette smokers. 12 tables. 3 figures. 23 references. Appendix. (AEd)

361. KATSUKI, S., HIROTA, Y.
Recent trends in incidence of cerebral hemorrhage and infarction in Japan. A report based on death rate, autopsy case and prospective study on cerebrovascular disease.
Jap Heart J 7:26-34, Jan 66.

Trends in the incidence of cerebral hemorrhage and infarction in Japan were analyzed, based on data from death rate, autopsy case, and our prospective study on CVD in a selected community called Hisayama, Kyushu Island. All 3 kinds of data demonstrate a decreasing trend in incidence of cerebral hemorrhage and an apparent increasing trend in incidence of cerebral thrombosis in Japan. As Japan has been since 1951, the country with the largest incidence of CVD among 33 countries of the world, these findings are significant. 5 tables. 5 figures. 16 references. (AEd)

362. KAWAI, M., AMAMOTO, H., HARADA, K.
Epidemiologic study of occupational lung cancer.
Arch Environ Health (Chicago) 14:859-64, Jun 67.

Workers at gas generator works in Japan showed an increased risk of lung cancer even after they discontinued the work. The tumors occurred only after an exposure of 10 or more years to the carcinogenic agent or agents when the workers had reached the cancer age. The longer the exposure, the greater the risk of lung cancer. Data include number of occupational lung cancer deaths, number of gas group workers who experienced gas generator work, and lung cancer deaths among them (1953-65). 3 tables. 9 references. (AEd)

120. KEYS, A.
The individual risk of coronary heart disease.
Ann NY Acad Sci 134:1046-56, 28 Feb 66.

363. KING, H., BAILAR, J. C. III
Epidemiology of urinary bladder cancer. A review of selected literature.
J Chron Dis 19:735-69, Jul 66.

Major findings of selected epidemiologic literature pertaining to cancer of the bladder are summarized. Increased mortality risks have been found among older ages, males, urban areas, native-born whites, Protestants, single, widowed and divorced persons, and cigarette smokers. Death rates have been relatively stable (particularly among whites) over the years, while morbidity rates have been increasing for the four sex-color groups. No significant association has been found between the risk of bladder cancer and broad social classes, nor have familial aggregations of the disease been observed. 21 tables. 5 figures. 134 references. (AEd)

122. KINZIE, J. D., KINZIE, K., TYAS, J.
A comparative health survey among two groups of Malayan aborigines.
Med J Malaya 21:135-9, Dec 66.

364. KLAINER, L. M., GIBSON, T. C., WHITE, K. L.
The epidemiology of cardiac failure.
J Chron Dis 18:797-814, Aug 65.

A review of available data related to the epidemiology of cardiac failure with special reference to mortality and morbidity in the U.S. It is difficult to correlate such data because of multiple methods of collection in poorly defined populations and because most data are concerned

with pathological data rather than with functional impairments. As a result, estimates of the prevalence of cardiac failure may lack validity. Available studies suggest that 1% of the U.S. population has been or is in cardiac failure, and that this disorder is most common in older people. 13 tables. 72 references. (AEd)

689. KLAUBER, M. R., JACKSON, E. W.
Leukemia and neonatal death rates.
Lancet 1:1002-3, 6 May 67.

365. KLEBBA, A. J.
Mortality from diseases associated with smoking, U.S., 1950-1964.
Vital and Health Statistics. Series 20, No. 4, Oct 66.

Analysis of mortality trends for diseases that the Surgeon General's Advisory Committee considered to be causally related to smoking (particularly cigarette), cancer of the lung, larynx, lip, and chronic bronchitis; and for diseases considered to be associated with but not clearly causally related to smoking, arteriosclerotic heart disease including coronary disease, cirrhosis of liver, emphysema, ulcer of stomach, cancer of the esophagus, cancer of parts of oral cavity other than lip, cancer of bladder and other urinary organs, and specified noncoronary cardiovascular diseases. 12 tables. (AEd)

366. KLEBBA, A. J.
Mortality trends in the U.S., 1954-1963.
Vital and Health Statistics. Series 20, No. 2, Jun 66.

Data on mortality trends, 1954-63, for 12 of the 15 leading causes of death by age, color, and sex. For both sex and color groups there was a decrease in the rate of fall in mortality, resulting in part from substantial increases in death from arteriosclerotic heart disease, malignant neoplasms of respiratory system (especially "lung cancer"), motor vehicle accidents, pneumonia, and cirrhosis of liver. Other diseases which increased as causes of death for men only and women only are discussed. 39 tables. (AEd)

124. KLIMT, C. R., MEINERT, C. L., HO, I. P.
Study of familial patterns of reported diabetes. Evaluation of questionnaire data.
Diabetes 16:40-41, Jan 67.

367. KRAUS, A. S., OPPENHEIM, A.
Trend of mortality from cancer of the breast.
JAMA 194:89-90, 4 Oct 65.

Shimkin (JAMA 183:358-61, 2 Feb 63) has commented on the nearly stable levels of the death, incidence, and survival rates for cancer of the breast in the U.S.. in recent decades. Age-color-specific death rates suggest that the picture has not been as stable as implied by the age-adjusted total rates used by Shimkin. A substantial proportion of the female population in the U.S., England, and Wales has experienced an appreciable reduction in death from breast cancer, while the remainder of the population has continued to show increasing mortality. Changes in diagnosis and treatment may have an effect, and changing trends in such factors as nonlactation may be related to the etiology. 2 tables. 3 references. (Ed)

129. KRIVINKA, R., COUFAL, K., POLANSKY, F.
Development of the epidemiology of tuberculosis in Czechoslovakia after the second world war.
Cesk Zdrav 14:79-88, Feb 66. (CZ)

368. KRUEGER, D. E.
Hypertensive and chronic respiratory disease mortality: confirmation of trends of multiple cause of death data.
Pub Health Rep 81:197-8, Feb 66.

Official mortality statistics show declining rates for hypertensive disease and increasing rates for chronic respiratory disease as underlying causes of death. Each of these types of disease are reported on many death certificates as associated causes, so that trends in single-cause mortality could be affected by changes in the manner of certification. Multiple cause of death data from the National Heart Institute study of smoking and mortality among veterans, 1954-1962, show that the trends for underlying causes and for contributory causes are similar, for each disease. 1 table. 1 reference. (ED)

369. KRUEGER, D. E.
New numerators for old denominators—multiple causes of death.
Nat Cancer Inst Monogr 19:431-43, Jan 66.

A 1955 mortality study in U.S. provides data on all the diagnoses recorded on death certificates in contrast to the usual practice of tabulating one cause. Two or more causes were tabulated for 58% of all deaths, varying from 29% for children under 5 to 72% for ages 85 and over. Age-adjusted percentages were higher for whites than for nonwhites by 6%. Cardiovascular disease was the most commonly cited. Rates were given for coronary heart, cerebrovascular, and hypertensive diseases, alone and in combination. Sex and color ratios differed widely among diseases and combinations of diseases. 8 tables. 3 references. (AEd)

370. KRUEGER, D. E., MORIYAMA, I. M.
Mortality of the foreign born.
Amer J Pub Health 57:496-503, Mar 67.

Mortality data on foreign born and native whites in the U.S. and in the countries of births of the former, for major cardiovascular-renal diseases and for all other diseases. Average annual rates by age and sex, 1959-61, are given. There is support for the hypothesis that death rates of the foreign born tend to become like those of the U.S. population. Findings are discussed and comments made for future studies. 3 tables. 1 figure. (AEd)

371. KRUEGER, D. E., WILLIAMS, J. L., PAFFENBARGER, R. S., JR.
Trends in death rates from cerebrovascular disease in Memphis, Tennessee, 1920-1960.
J Chronic Dis 20:129-37, Mar 67.

Uniform coding procedures were applied to mortality data on cerebrovascular disease in Memphis, Tenn., 1920-1960. Although the total rate was constant during this time, contrasting trends were observed for component diseases, namely downward for cerebrovascular hemorrhage and upward for cerebrovascular occlusion. Changes in diagnostic terms and tendencies produced an increase in use of "cerebrovascular accident" as a term of convenience, but did not obscure the reversing patterns of the two major types of cerebrovascular disease. Downward trends of cerebrovascular hemorrhage and hypertensive disease and nephritis together with upward parallels of cerebrovascular occlusion and coronary heart disease, lead to consideration of relationships in etiologies. 7 figures. 8 references. (AA)

372. KULLER, L.
Sudden and unexpected non-traumatic deaths in adults: A review of epidemiological and clinical studies.
J Chronic Dis 19:1165-92, Nov-Dec 66.

Reported studies of sudden and unexpected non-traumatic deaths in adult populations are reviewed. The percent of deaths certified by a coroner or medical examiner is the only available measure of frequency of sudden death in a community. The greater frequency of sudden death in certain ethnic, racial, and economic groups may be due to the availability of medical care influencing the frequency of certification by a medical examiner. Cardiovascular disease, especially coronary artery disease, accounts for a majority of sudden deaths. The pathophysiology of sudden and unexpected death is discussed but because a large number of these deaths occur outside a hospital and are medically unattended, the mechanisms of death are often not determined. 6 tables. 173 references. (AEd)

373. KULLER, L., LILIENFELD, A., FISHER, R.
An epidemiological study of sudden and unexpected deaths in adults.
Medicine (Balt) 46:341-61, Jul 67.

A study of sudden, unexpected non-traumatic deaths was made for a sample of all deaths to Baltimore residents, ages 20-64, in 1964-65. All available medical information including interviews with the next of kin were used to determine: (1) whether the death was sudden, and (2) the accuracy of the diagnosis reported on the death certificate. "A sudden death" was defined as: "An individual who died due to natural causes and who was not restricted to his home, a hospital or an institution, or unable to function in the community for more than 24 hours prior to death, and in which the time interval from the onset of the fatal event until death was less than 24 hours." After adjusting for sampling, it was estimated that 32% (1,077) of 3,326 deaths to ages 40-64 were sudden. Arteriosclerotic heart disease (ASHD) accounted for 61% of the sudden deaths. 60% of the ASHD deaths were sudden. Of the deaths in Baltimore City, 21% occurred outside a hospital and 46% were dead on arrival (DOA) at a hospital. About half the ASHD sudden deaths had a reported history of heart disease prior to death. There are several implications of the findings. A serious bias exists when studies of sudden death are restricted to deaths certified by the Medical Examiner. Because of the large percentage of ASHD deaths that are sudden and occur outside of a hospital, or are DOA, mortality statistics may be seriously affected by variations in the percentages of sudden deaths certified as being due to ASHD. Reduction in the frequency of sudden death is dependent on the prevention and treatment of ASHD. 12 tables. 75 references. (AEd)

374. KULLER, L., LILIENFELD, A., FISHER, R.
Epidemiological study of sudden and unexpected deaths due to arteriosclerotic heart disease.
Circulation 34:1056-68, Dec 66.

The results of the study described above are further discussed along with the implications of these findings with regard to the prevention of ASHD death. 11 tables. 31 references. (Ed)

375. KULLER, L., LILIENFELD, A., FISHER, R.
Quality of death certificate diagnoses of arteriosclerotic heart disease.
Pub Health Rep 82:339-46, Apr 67.

In 533 (30%) of the 1,857 deaths to ages 20-64 in the original sample, ASHD was considered to be the principal cause of death. Of these, 93% had ASHD as the underlying cause and 7% had ASHD as either an immediate or contributing cause. Because of the rapidity of the events leading up to deaths attributed to ASHD, the accuracy of the diagnosis is often based only on a history of heart disease, suddenness of death, and the absence of other significant disease. 6 tables. 12 references. (AEd)

376. KULLER, L., LILIENFELD, A., FISHER, R.
Sudden and unexpected deaths due to natural causes in adults. A comparison of deaths certified and not certified by the medical examiner.
Arch Environ Health 13:236-42, Aug 66.

After adjusting for sampling, it was estimated that 1,178 (32%) of the 3,648 deaths to ages 20-64 were sudden. The Medical Examiner certifies more sudden deaths in younger ages, in Negroes, in males, and in sudden deaths not due to ASHD. Sudden deaths in the upper socioeconomic classes, and especially those with a history of either a recent visit to a physician, or heart disease, were usually not certified by the Medical Examiner. Adequate studies of sudden death must include deaths not certified by the Medical Examiner. 11 tables. 20 references. (AEd)

377. KULLER, L., LILIENFELD, A., FISHER, R.
Sudden and unexpected deaths in young adults.
JAMA 198:248-52, 17 Oct 66.

Of the 322 nontraumatic deaths to ages 20-39, 101 (31%) were sudden and unexpected. Such deaths were more common among Negroes and among males. Alcoholism and fatty liver was the leading cause (28%) of sudden deaths, while 22% were due to ASHD. 6 tables. 26 references. (AEd)

378. LANCASTER, H. O., DONOVAN, J. W.
A study in New Zealand mortality. I. Population data.
New Zeal Med J 65:946-53, Dec 66.

A review of mortality in New Zealand and a discussion of limitations of the data. Methods used for enumeration of population and factors that have altered age and sex distributions are described. Much aging has occurred over the period of the survey, and further aging is predicted. The standardizing procedures needed as a result of these changes are considered. 1 table. 4 figures. 23 references. (AEd)

379. LANGBERG, R.
Homicide in the U.S., 1950-1964.
Vital and Health Statistics. Series 20, No. 6, Oct 67.

Mortality trends from homicide by age, sex, and color for 1950-64 and homicides for 1959-61 by marital status, nativity, and geographic area. In 1964 homicide was the second leading cause of death for nonwhite males and females aged 15-24 years. Homicide rates increased from 1 per 100,000 in 1900 to 9.8 in 1933, declined to 4.5 in 1955, and rose to 5.1 in 1964. Infanticide has doubled since 1957. Nearly half the homicides were among ages 25-44. Rates were higher among

males than among females. Age-adjusted rates show little difference between metropolitan and nonmetropolitan counties or by nativity of the white population. By marital status, divorced persons have the highest rate, and married the lowest. 7 tables. (AEd)

132. LAPUSAN, I.
Morbidity and mortality in the hospitals of the SR of Rumania in comparison with the morbidity and mortality of the population of the whole country.
Sante Publique (Bucur) 8:195-213, 65.

380. LAURIAULT, C. D., JIM, R. T.
Geographic distribution of leukemia in Hawaii.
Cancer 20:541-4, Apr 67.

Recent epidemiological surveys of leukemia tend to favor the hypothesis that leukemia may be infectious. "Clusters" of leukemia cases have been observed in many areas. In this study 131 cases of leukemia were surveyed to pinpoint residence in Hawaii, and to determine if any "clusters" or any high-risk areas of leukemia as to time or place were found. 1 table. 1 figure. 10 references. (AEd)

381. LEA, A. J.
Dietary factors associated with death-rates from certain neoplasms in man.
Lancet 2:332-3, 6 Aug 66.

A significant association has been found between death rates from malignant neoplasms of the breast in women and environmental temperature in different countries. Since diet should be influenced by environmental temperature, the consumption of various dietary constituents for all available countries (UN 1964) were examined—24 countries from Europe, Asia, and South America. A highly significant correlation was found between the consumption of fats and oils and the death rates from neoplasms of the breast, ovaries, rectum, and leukemia in ages over 55. The correlation between environmental temperature and fat consumption was less significant. A possible relationship between the cholesterol and cholesterolgenic constituents of diet and death rates from neoplasms of the breast is suggested. 1 table. 7 references. (Ed)

382. LEA, A. J.
Relationships between environmental temperature and the death rate of women from neoplasms of the breast.
Nature (London) 209:57-9, 1 Jan 66.

For Norway, Sweden, Scotland, and England and Wales the death rate from neoplasms of the breast is closely correlated with the mean average temperature. This investigation has been extended to all countries for which comparable data were available. The mean average temperature was plotted against deaths from cancer of the breast. There seems to be a negative correlation. Two factors which may influence the incidence of breast neoplasms have been investigated (lactation and social conditions) but these did not seem to affect a seasonal environmental temperature incidence. 1 table. 1 figure. 13 references. (Ed)

383. LEE, J. A.
Summer and death from neuroblastoma.
Brit Med J 2:404-7, 13 May 67.

Deaths from neuroblastoma for all ages and both sexes are more common in the summer than winter months in England and Wales. The summer excess in mortality for all patients is 32%. The seasonal pattern may be due to a physiological mechanism which influences the activity of certain forms of neoplastic disease. Dates of diagnosis of 72 cases of neuroblastoma in Seattle, Washington, show that there were 5.7% more diagnoses in the months of April-September than October-March. The number of deaths from neuroblastoma by age and by season, and by single months of age of children are given. 5 tables. 2 figures. 1 reference. (AEd)

133. LEHMAN, E. W.
Social class and coronary heart disease: A sociological assessment of the medical literature.
J Chron Dis 20:381-91, Jun 57.

384. LIM, L. E., TAN, E. C., MICHELENA, C. T.
Childhood mortality in the Philippines.
J Philipp Med Ass 41:304-12, Apr 65.

Children ages 1-14 constitute about 43% of the total population of the Philippines. Death rates by age of the child are shown for 1962 for the country, for regions in the country, for groups by degree of medical care received, and for neighboring countries. Education of mothers in public health measures and immunizations could reduce preventable deaths. 11 tables. 1 figure. 1 reference. (AEd)

385. LOFGREN, S. (Editor)
Proceedings of the third international conference on sarcoidosis, Sept 11-14, 63.
Acta Med Scand 176: Suppl 425:92-177, 64.

Included in the conference were 5 sections on the epidemiology of sarcoidosis: (1) methodological aspects of mass chest radiography, (2) prevalence of pulmonary sarcoidosis studied by mass chest radiography, (3) regional reports on sarcoidosis prevalence (consisting of 29 reports from various countries of Europe, South America, Asia, Africa, and U.S.A., based mainly on mass chest x-ray findings), (4) prevalence of sarcoidosis in autopsy material, and (5) compulsory notification of sarcoidosis. Tables. (Ed)

386. LOPEZ, A., KREHL, W. A., HODGES, R. E.
Relationship between food consumption and mortality from atherosclerotic heart disease in Europe.
Amer J Clin Nutr 19:361-9, Nov 66.

Study of atherosclerotic heart disease (AHD) mortality in 15 European countries and comparison with their food consumption patterns. Fat and carbohydrate consumption does not consistently increase with observed increases in AHD mortality in each country, suggesting that other factors must be considered in AHD etiology. 3 tables. 2 figures. 34 references. (Ed)

137. LOWELL, A. M.
A view of tuberculosis morbidity and mortality fifteen years after the advent of the chemotherapeutic era, 1947-1962.
Bibl Tuberc 22:55-124, 66.

387. LUNDIN, F. E. JR., FRAUMENI, J. R., JR., LLOYD, J. W.
Temporal relationships of leukemia and lymphoma deaths in neighborhoods.
J Nat Cancer Inst 37:123-33, Aug 66.

Deaths from leukemia and lymphoma occurring in a metropolitan area over a 10-year period were grouped by

spatial proximity into 350 pairs. The temporal distribution of paired deaths revealed an excessive number occurring 6-8 years apart. This excess was not found among control deaths matched by age, sex, race, and year of death. Although leukemia and lymphoma were not found to cluster in time or space, the temporal pattern of deaths suggests that etiologic factors may be transmitted from some cases to others. Alternate explanations, however, could not be excluded. Further study is needed before these observations can be taken as evidence for the communicability of leukemia. 8 tables. 2 figures. 30 references. (AA)

388. LYSTER, W. R.
A reverse correlation between the sex ratio of live births and the death rate from malignant neoplasms.
Med J Aust 1:1259-60, 24 Jun 67.

Changes in the sex ratio of live births in the U.S. are followed 5 years later by changes in the death rate from malignant neoplasms. A rise in the sex ratio is followed by a decline in the death rate, and visa versa. Apart from this 5-year association for all births and deaths in the U.S., the nonwhite population is seen to have a consistently low sex ratio and a consistently high death rate from malignant neoplasms. Age-adjusted death rates for malignant neoplasms in 1965 are given. 2 tables. 2 references. (AA)

389. MACDONALD, E. J., WELLINGTON, D. G., WOLF, P. F.
Regional patterns in mortality from cancer in the United States.
Cancer 20:617-22, May 67.

A study of U.S. age-adjusted cancer death rates, 1940-59, showed strong regional patterns in the level of death rates and in their variation over time. Marked differences in race and sex were found in the death rate for each site. By correlation analysis, relationships between various primary sites of cancer with respect to their regional mortality patterns were derived. Similarities in the changes that occurred in the mortality rates during this period were evaluated. 1 figure. 2 references. (Ed)

390. MACDONALD, W. C.
Gastric cancer among the Japanese of British Columbia: Dietary studies.
Canad Cancer Conf. 6:451-9, 66.

The dietary habits of elderly Japanese who migrated to Greater Vancouver area 35-55 years ago were compared with those of non-Japanese subjects of similar age and status. Japanese eat much more fish and rice, pickled and salty foods, and less beef, potatoes, bread, milk, and cereals than the control group. The mortality rate from gastric cancer among Japanese of British Columbia and the State of Washington is three times as high as in the general population. 3 tables. 3 figures. 13 references (AA)

391. MACPHERSON, R. K., OFNER, F., WELCH, J. A.
Effect of the prevailing air temperature on mortality.
Brit J Prev Soc Med 21:17-21, Jan 67.

In an institution for the aged and chronically ill, the mortality for all ages was least (14% below the annual daily average) when the 3:00 p.m. temperature was 70-79°F. At 50-59°F deaths were 19% above and at 80-89°F, 13%, above the annual daily average. The effect of successive hot days appeared to be cumulative. The effect of temperature first became plainly evident at 70 years of age and increased thereafter with increasing years of age. In relatively mild climatic conditions prevailing, the effect of unfavorable temperature was small, possibly having some part in 63% of all deaths. 6 tables. 7 references. (AA)

392. MANCUSO, T. F., EL-ATTAR, A. A.
Mortality patterns in a cohort of asbestos workers. A study on employment experience.
J Occup Med 9:147-62, Apr 67.

A cohort of 1,265 white males and 228 white females employed in an asbestos manufacturing plant in 1938-39 (established through Social Security records) were observed to mid-1964. The cohort was divided into 5 levels of working experience from under 2 years to 17 or more. The group with less than 2 years experience was used as an internal control. There was a consistent increase in the average mortality rates as cumulative employment experience increased—specifically for malignant neoplasms, cardiovascular diseases, and asbestosis. 4 tables. 20 references. (AEd)

143. MARKS, R. U.
Social stress and cardiovascular disease. Factors involving social and demographic characteristics. A review of empirical findings.
Milbank Mem Fund Quart 45: Suppl:51-108, Apr 67.

393. MARTIN, D. C., CHIN, T. D., LARSEN, W. E.
Leukemia and lymphoma. An epidemiologic study in three midwestern states, 1950-1959.
J Kansas Med Soc 67:361-5 Passim, Jul 66.

A 10-year study of leukemia and related neoplasms in Kansas, Oklahoma, and Missouri among 10,247 cases as registered in death certificates for 1950-1959. Grouping of counties with high incidence was not sufficient to support localization theories. Acute leukemia, chronic leukemia, lymphoma, Hodgkin's disease, and multiple myeloma showed increasing incidence with age. The older age groups were an important factor in explaining some variations in death rates among counties and regions. Death rates were significantly higher for leukemia and allied diseases in urban areas in all 3 states. The small towns (population 2,500-5,000) had the highest death rates even controlling for variation. 5 tables. 4 figures. 28 references. (AEd)

394. MASI, A. T., DIANGELO, W. A.
Epidemiology of fatal systemic sclerosis (diffuse scleroderma). A 15-year survey in Baltimore.
Ann Intern Med 66:870-83, May 67.

An epidemiologic survey of fatal scleroderma in Baltimore uncovered 53 cases, 1949-1963. Two control groups were selected from death certificates. Negro females who died with scleroderma exceeded white females 6.6:2.2 per million per year, but no difference was found among white and Negro males whose ratio was 1.3:1.0. Mortality among white males increased with age. Survival time was shorter among Negroes but equal for males and females with the disease. No significant occupational differences were found between scleroderma cases and control deaths from other causes. Problems in certification of scleroderma deaths were illuminated. 10 tables. 26 references. (AEd)

395. MASSEY, J. T.
Suicide in the U.S., 1950-1964.
Vital and Health Statistics. Series 20, No. 5., Aug 67.

Suicide, though suspected of being understated as a cause of death, has been among the 12 leading causes in the U.S. for the past 10 years. Trends for suicide are reviewed and the rates for age, color, sex, marital status, and other groups are examined. Firearms are more frequently used for committing suicide than any other means. Suicides are more frequent: in the spring, among males, in the white population, among older persons, among divorced persons, and in the West. The age-adjusted suicide rate was the same in 1964 as in 1950. The age-specific rates show upward trends for the younger and middle ages, with a downward trend for the older ages. 7 tables. (AEd)

396. MATSUFUJI, H.
Analysis of factors in lung cancer mortality evaluated in each prefecture.
Med Biol (TOKYO) 72:44-6, 1 Jan 66. (JAP)

No English summary.

397. MATSUFUJI, H.
Analysis of factors in the mortality of gastric and duodenal ulcer in male evaluated by prefecture.
Med Biol (TOKYO) 72:181-6, 10 Mar 66. (JAP)

No English summary.

398. MAYNARD, J. E., HAMMES, L. M., KESTER, F. E.
Mortality due to heart disease among Alaskan natives, 1955-65.
Pub Health Rep 82:714-20, Aug 67.

The 378 deaths due to heart disease (ICD 410-443), 1955-65, among Alaskan Aleuts, Eskimos, and Indians, aged 40 and over, were analyzed for certification status, sex, geographic area, and ethnic classification. Data were compared with overall U.S. rates for 1960, and with geographic area and ethnic designation within the State. Mortality rates, respectively, for Alaskan natives and the U.S. were 2.4 and 5.6 per 1,000 for males, ages 40-64; 15.8 and 33.1 for males 65+; 1.4 and 2.1 for females, ages 40-64; and 14.7 and 24.2 for females, 65+. Reasons for these and for geographic differences must await further investigation. 6 tables. 1 map. (AEd)

145. MCCARROLL, J.
Measurements of morbidity and mortality related to air pollution.
J Air Pollut Contr Ass 17:203-9, Apr 67.

399. MCCARROLL, J., BRADLEY, W.
Excess mortality as an indicator of health effects of air pollution.
Amer J Public Health 56:1933-42, Nov 66.

Examination of total deaths in New York City by day of occurrence shows periodic peaks in mortality associated with periods of high air pollution, and usually periods of low wind speed and temperature inversion conditions which permit air pollution to build up to high levels. A characteristic feature of these episodes is the immediate rise in mortality occurring on the same day as the peaks of pollution and the frequent influence on death rates in the 45 and older age groups. These characteristics suggest that if these excess deaths are related to air pollution, the mechanism is probably pervasive, affecting the course of a variety of different diseases through a basic physiologic relationship. 3 figures. (AEd)

400. MENOTTI, A., NATALE, M., PUDDU, V.
Isomortality for cardiovascular diseases. Attempted application to Italian areas of a new mortality study procedure.
Cuore Circ 50:1-27, Feb 66. (IT)

Application to the "regions" of Italy of an analytic-statistic method presented by Joossens, which permits the study of mortality from degenerative cardiovascular diseases as a function of age, and the separation, within certain limits, of the two basic components of death, the genetic factor, and the factor due to the environment. It is possible to obtain, for each regional population, an index "b" which is probably related to the genetic resistance against mortality for that disease. With further procedures, the age of isomortality can be calculated, that is the age at which the differences of mortality among several populations are at a minimum. The trend of theoretical death rates at the age of isomortality should be the best way to evaluate the relative importance of factors due to the environment, and to explain the differences in mortality among several populations. Results should indicate the greater importance of the acquired factors than of the genetic factors in determination of cardiovascular mortality, or at least of its interregional differences in Italy. 7 tables. 11 figures. 6 references. (AEd)

154. MILLER, F. J.
Childhood morbidity and mortality in NewCastle Upon-Tyne, further report on the thousand family study.
New Eng J Med 275:683-90, 29 Sep 66.

401. MONTENEGRO, M. R.
Cancer of the gastrointestinal canal in Sao Paulo, Brazil.
Nat Cancer Inst Monogr 25:249-57, Jul 67.

Observed frequencies of cancer of the gastrointestinal tract in Sao Paulo rank high, not only in relation to other Latin American cities studied, but also when compared with non-Latin American cities. Two sets of data from Sao Paulo are presented: the first based on study of 59,853 consecutive autopsies, and the second on 1/6 of deaths occurring in the city, 1962-63. Carcinoma incidences by site and age of the deceased are given. 8 tables. 20 references. (AEd)

402. MORIYAMA, I. M.
The change in mortality trend in the United States.
Vital and Health Statistics. Series 3, No. 1, Mar 64.

After a long period of rapid and substantial decline, the death rate has reached the point where further rapid decreases cannot be anticipated. The recent changes in trend stem from a combination of two factors. One, the impetus imparted by the reduction in death rate for the infective diseases gradually diminished as the proportion of deaths from these diseases decreased. Two, the downward trend of the death rate was checked by the current mortality trends of diseases and conditions which constitute the core of mortality in the present population, namely the chronic diseases and accidents and other violence. The direction or the rate of change of these trends is such that they would retard the downward course of the total death rate. Text tables. (AEd)

160. MORTON, W. E.
Altitude and rheumatic fever in Colorado.
Amer J Epidem 83:250-4, Mar 66.

161. MOSEBECH, J., DREYER, K.
Coronary occlusion in Denmark, morbidity and mortality.
Acta Med Scand 180:429-40, Oct 66.

403. MUHSAM, H. V.
Differential mortality in Israel by socioeconomic status.
Eugen Quart 12:227-32, Dec 65.

It has in the past been corroborated that socioeconomic status (SES) and mortality are negatively correlated. A reversal of this pattern appears in Israel in 1961-62 for the first time. Death rates are considered for 5 SES classes recognized in Israel. Determination of class is based on year and country of origin of immigration to Israel. Reasons for differences are discussed. 2 tables. 10 references. (AEd)

404. MULCAHY, R.
The influence of water hardness and rainfall on cardiovascular and cerebrovascular mortality in Ireland.
J Irish Med Ass 59:14-5, Jul 66.

The total hardness of water, average rainfall, and death rates from cardiovascular and cerebrovascular disease have been determined for the 15 largest towns in the Republic of Ireland, and for the 13 largest ones in Northern Ireland. Hardness of water shows a consistent but insignificant negative correlation with heart and cerebrovascular death rates. These support similar findings in Japan, U.S., and Great Britain. Rainfall showed no significant correlation. 2 tables. 6 references. (AEd)

405. MULLER, C., RUZICKA, L.
Cancer mortality in Czechoslovakia in international comparison.
Deutsch Gesundh 20:1167-72, 24 Jun 65. (GER)

Analysis of cancer mortality in the Czechoslovak SSR, 1950-1962, and comparison with mortality in other European countries. The effect of age on cancer mortality and regional differences in the individual districts and big cities are described. Changes in the structure of cancer mortality according to site, above all to the increased share of malignant tumors of the respiratory organs in men, are noted. The total cancer mortality rate and the share of malignant tumors of the respiratory organs in various countries are closely correlated. 5 tables. 2 figures. 8 references. (AEd)

162. NASHOLD, R. D.
Attempted suicide by chemical agents.
Wisconsin Med J 64:327-8, Sep 65.

406. OEHMISCH, W., GERHARDT, L.
The development of mortality in the German Democratic Republic from 1953 to 1963.
Deutsch Gesundh 21:126-35, 20 Jan 66. (GER)

Age-standardized and age-specific mortality rates for the most important group of causes of death recorded in the GDR for the last 10 years were studied. A slight increase was seen in total mortality possibly because of the higher rate in older ages from diseases of the central nervous system, malignant neoplasms, and cardiovascular diseases. Mortality from infectious diseases has decreased. Mortality among women, babies, and younger age groups continues to decline. Accidents and diabetes show increasing mortality rates for some age groups. (AEd)

407. PAFFENBARGER, R. S., JR, MILLING, R. N., POE, N. D.
Trends in death rates from hypertensive disease in Memphis, Tennessee, 1920-1960.
J Chronic Dis 19:847-56, Aug 66.

Data on hypertensive disease and nephritis as underlying or contributory causes of death. Whatever the etiology of hypertensive diseases, it would seem that under present conditions of human resistance and environment these diseases are losing ground in Memphis, Tennessee. Perhaps an important factor in their decline has been the influence of selective mortality and of environmental improvements that tend to raise what may be called nonspecific human resistance. The data from this mortality study lend support to ideas that: (1) much of what was formerly called nephritis is now called hypertension or some form of hypertensive disease, and (2) there has been a long-term decline in mortality from hypertensive disease similar to the pattern of the infectious disease. 6 figures. 6 references. (AA)

408. PAFFENBARGER, R. S., WILLIAMS, J. L.
Chronic disease in former college students, V. Early precursors of fatal stroke.
Amer J Public Health 57:1290-99, Aug 67.

Of 50,000 male former students who had entered the University of Pennsylvania or Harvard University between 1916 and 1950 and submitted to case-taking procedures, 171 are known to have died from stroke. Two-thirds of these deaths were ascribed to subarachnoid or intracerebral hemorrhage, and the remainder were considered occlusive in origin. 4 control subjects for each stroke decedent were chosen at random from his surviving classmates of equivalent age. Comparison of case-taking and other college records of decedents and control groups identified 7 characteristics predisposing to fatal stroke: cigarette smoking, higher blood pressure, increased body weight, shorter body stature, early parental death, heart consciousness, and nonparticipation in varsity sports. 6 tables. 3 figures. 4 references. (AA)

409. PAI, D. N.
Ten leading causes of death in Bombay City.
J Postgrad Med 12:99-111, Jul 66.

Trends in mortality patterns of Bombay have been analyzed and the 10 leading causes of death in each age and sex group defined. Considering the cosmopolitan character of the city where 1% of the Indian population is resident, mortality risks may be considered as probable estimates of the true parameters in urban India. Leading causes of death by age and sex for 1941, 1951, and 1961 for Bombay, and for selected countries in other parts of the world are compared. 14 tables. 5 references. (AEd)

410. PAI, D. N., DATEY, K. K.
Mortality patterns due to cardiovascular diseases.
Indian Heart J 18:131-9, Apr 66.

A cardiovascular mortality rate of 137 per 100,000 population in Bombay City (1962) is considered as a reasonable estimate of the true parameter for urban India. It has been shown that the steep rise in cardiovascular mortality cannot be completely accounted for by improved methods of diagnosis or demographic changes in the age distribution of the population. An epidemiologic investigation is recommended to study the dissimilar picture in Poona. 9 tables. 7 references. (AEd)

411. PARRISH, H. M., CARR, C. A., SILBERG, S. L.
Increasing autopsy incidence of coronary heart disease in women.
Arch Intern Med (Chicago) 118:436-45, Nov 66.

An epidemiologic study of coronary heart disease (CHD) and coronary artery atherosclerotic blockage among white women in an autopsy population. There was an increase in the autopsy incidence of CHD among white females, 1935-1949, and 1950-1959, (with concomitant diabetes mellitus). The prevalence of coronary artery atherosclerotic blockage among accident and cancer patients tends to support the increased autopsy incidence of CHD as being "real" rather than "apparent". The prevalence of coronary atherosclerotic blockage was associated with hypertension and with age but not with body weight at time of death. 8 tables. 15 references. (AEd)

412. PARTAMIAN, J. O., BRADLEY, R. F.
Acute myocardial infarction in 258 cases of diabetes. Immediate mortality and five-year survival.
New Eng J Med 273:455-61, 26 Aug 65.

Immediate mortality (death within 2 months) was 38% among 205 diabetic patients hospitalized during 1954-58 after *initial* acute myocardial infarction and 55% among 53 with subsequent infarction. The 5-year survival rates were respectively 38 and 25. Clinical findings are discussed. Data were compared with previous similar studies among diabetic patients and the general population. Once again they point to the seriousness of coronary heart disease in diabetic patients as judged by its high incidence and the poor overall prognosis after acute myocardial infarction. 8 tables. 24 references. (AEd)

177. PERRY, C. B.
On the changing face of rheumatism.
Bristol Medicochir J 82:54-7, Apr 67.

413. PETERSEN, N. J., SAMUELS, L. D., LUCAS, H. F.
An epidemiologic approach to low-level radium 226 exposure.
Pub Health Rep 81:805-14, Sep 66.

An epidemiological investigation identified 111 Iowa and Illinois communities with a combined population of almost a million exposed to a high mean drinking water concentration of 5% radium 226 per liter during 1950-62. Retrospective analysis of death certificates showed an adjusted bone neoplasm mortality rate of 1.4 deaths per 100,000 compared to 1.1 in control populations, (P=0.08). 10 tables. 3 figures. 17 references. (AEd)

414. POPOV, M., BOURILKOVA, L.
Accidents as cause of mortality in children.
Sante Publique (Bucur) 9:329-36, 66.

Data for 1959-1964 demonstrate that the proportion of all childhood mortality due to accidents increases rapidly from 3% in children under 1 to 38% in children aged 11-14 years. The increase by age is real (the numbers of deadly accidents increase) and not merely the result of a decrease from other causes of death. Seasonal variation is noted. 7 tables. Charts and Graphs. 23 references. (Ed)

415. POTVIN, A. R.
On cancer mortality and morbidity in the Province of Quebec.
Un Med Canada 94:442-8, Apr 65. (FR)

The "Registre des Tumeurs de la Province de Québec" was founded in 1961. It receives records from 365 hospitals in Quebec. In 1962, 8,007 cases of cancer were reported; in 1963, 9,323 cases. Tables show the sites of the cancers reported and the sex of the patients; other tables show which fatal cancers are most frequent, their distribution by age and by sex. 6 tables. (AA)

416. PUDDU, V., MENOTTI, A.
Ischemic heart disease and cerebrovascular accidents mortality trends in the Italian regions. Their relationship to some socio-economic indexes.
Acta Cardiol (Brux) 21:654-62, 66.

Age-standardized death rates for ischemic heart disease and cerebrovascular accidents are given for the 20 Italian regions for males and females, 1961-62. The higher mortality from ischemic heart disease in the northern as compared with the southern regions is stressed, while no typical behavior is noted for rates from cerebrovascular accidents. Regional income and welfare indexes are found to be clearly related, especially for men, to rates for ischemic heart diseases but not for cerebrovascular accidents. The results are discussed. 3 tables. 2 figures. 15 references. (AA)

417. PUDDU, V., MENOTTI, A., NATALE, M.
Isomortality from ischemic heart diseases in Italian regions.
Atti Soc Ital Cardiol 1:117-8, 66. (IT)

No English summary.

418. PUFFER, R. R., GRIFFITH, G. W., CURIEL, D.
International collaborative research on mortality.
WHO Public Health Pap 27:113-30, 1965.

The origin, development and methodology of a major collaborative research project which is international in scope is described. Its main objective is the provision of death rates from cardiovascular diseases, cancer, etc. by age group, with the highest possible degree of accuracy and comparability. 12 cities (Bogota, Bristol, Cali, Caracas, Guatamala City, La Plata, Lima, Mexico City, Ribeirao Preto, San Francisco, Santiago, Sao Paulo) are included. Field surveys were made of each city and a central review procedure described. Each investigator is encouraged to analyze statistics, deaths, and causes of death from his own city. 1 table. 1 figure. 5 references. (Ed)

419. QUISENBERRY, W. B., BRUYERE, P. T., ROGERS, M. G.
Ethnic differences in cancer in Hawaii.
Milit Med 131:222-33, Mar 66.

Cancer of the stomach, lung, and breast in Hawaii were studied from hospital records for 1947-54 and the Hawaii Tumor Registry Report for 1960-62. Average death rates for both sets of years are compared by sex and ethnic group—Hawaiian, Japanese, and Caucasian. The Japanese had the highest incidence of stomach cancer and Caucasians had the highest incidence of cancer of the bronchi and lungs and breast, but over time the relative incidence appears to be changing among the

3 ethnic groups. Possible effects of diet, genetics, smoking, and breast feeding are discussed and results of other studies are cited. 5 tables. 4 figures. 21 references. (AEd)

185. REID, D. D.
Studies of disease among migrants and native populations in Great Britain, Norway, and the United States. 1. Background and design.
Nat Cancer Inst Monogr 19:287-99, Jan 66.

420. REID, D. D., ROSE, G. A.
Assessing the comparability of mortality statistics.
Brit Med J 5422:1437-9, 5 Dec 64.

A method of studying death certification habits in different countries is described. The results obtained in a pilot inquiry among hospital physicians in Norway, the United Kingdom, and the U.S. are discussed in relation to differences between these countries in the reported death rates from bronchitis and arteriosclerotic heart disease. 2 tables. References. (AA)

421. RENZETTI, A. D., JR., MCCLEMENT, J. H., LITT, B. D.
The Veterans Administration cooperative study of pulmonary function 3. Mortality in relation to respiratory function in chronic obstructive pulmonary disease.
Amer J Med 41:115-29, Jul 66.

A cooperative study of life expectancy in chronic obstructive pulmonary disease has been conducted in 15 Veterans Administration Hospitals that had previously contributed to the study of pulmonary function in normal men. Clinical information was obtained for 487 men who were studied between October 1957 and July 1960. After 4 years, the mortality rate was 53%. Those who had some physiologic disturbance upon entrance into study had the highest rate of mortality. Patients with chronic obstructive pulmonary disease who reside at moderately elevated altitudes have a significantly higher mortality rate than those who reside at sea level, likely resulting from higher incidence of COR pulmonale among patients residing at high altitudes. 22 tables. 5 figures. 26 references. (AEd)

187. RIISHEDE, J.
Cerebral apoplexy: Statistical and diagnostic considerations.
Canad Med Ass J 97:151-60, 22 Jul 67.

422. RINGERTZ, N.
Epidemiology of gastrointestinal cancers in Scandinavia. II. Report on Iceland.
Nat Cancer Inst Monogr 25:241-7, Jul 67.

Since 1955, Iceland has had a National Cancer Registry. Cancer mortality in Iceland is lower than in most west European countries but higher than in Norway and Sweden. Nearly 2/3 of cancer mortality in males and 1/2 in females is caused by gastric cancer. Cancer of the esophagus and stomach are high and cancer of the colon and rectum are low. Incidence of cancer by various sites is given. 5 tables. 5 figures. 7 references. (AEd)

423. ROSE, G.
Cold weather and ischaemic heart disease.
Brit J Prev Soc Med 20:97-100, Apr 66.

Mortality for ASHD in England and Wales shows a seasonal pattern similar to that for cases of proven cardiac infarction. The mid-winter peak ranges from 20% to as much as 70% above the midsummer trough. The winter excess of deaths in any particular group is very highly correlated with coldness but not to a significant degree with either air pollution or rainfall. A fall in mortality with rise in temperature is apparent over the whole of the observed temperature range, although the magnitude of the effect diminished exponentially. It appears that changes in temperature are responsible for most of the short term fluctuations in ischaemic heart disease mortality. 1 table. 4 figures. 14 references. (AA)

424. ROUQUETTE, C., CORONE, J.
Recent trends in the mortality of children from 1 to 14 years of age.
Bull Inst Nat Sante 20:183-202, Mar-Apr 65. (FR)

Death rates in France for children 1-4 years are compared with those for children 5-14 years. Infections, respiratory diseases, and congenital malformations followed by accidents are the main causes of death in the younger group. For the older group, the death rates in general are lower, accidents increase, and infections and congenital malformation decrease in importance as causes of death. Some comparisons are made with other European countries. 15 tables. (AEd)

425. RUCKNAGEL, D. L.
Epidemiologic and genetic features of leukemia in the United States.
New Zeal Med J 65:Suppl:869-74, Dec 66.

The U.S. is among the countries with the highest reported incidence of leukemia, exceeded only by Israel, Denmark, Sweden, and New Zealand. Incidence in the U.S. is increasing. Geographical variation correlated best with the population density of physicians, then with median income, and least with proportion of urban population. Epidemiology, age-and-sex specific mortality rates, U.S. leukemia death rates, and the genetic approach to the study of leukemia statistics are all discussed. 2 figures. 40 references. (Ed)

426. SAUER, H. I., PAYNE, G. H., COUNCIL, C. R.
Cardiovascular disease mortality patterns in Georgia and North Carolina.
Pub Health Rep 81:455-65, May 66.

White men, ages 45-64 and 35-74, in the Southern Blue Ridge area and adjacent counties of Georgia and North Carolina had the lowest death rates in these two States for all cardiovascular diseases, coronary heart disease, and all causes combined for 1950-1959, resembling the low rates in the U.S. Western plains. The highest rates were in Savannah, Augusta, and Raleigh—generally twice as high as in the mountain area. This geographic pattern was similar for the years 1950-59, 1949-51, and 1959-61. The pattern observed for ages 65-74 was also seen for ages 55-64. Thus, the patterns do not appear to be the result of random error. A marked association between death rates and soil types was found in Georgia. Also a high correlation was noted between death rates for coronary heart disease and lung cancer. 5 tables. 4 figures. 33 references. (AEd)

427. SAUER, H. I., RICKMAN, H. L., PAYNE, G. H.
Mortality patterns of middle-aged whites in Nebraska.
Nebraska Med J 51:393-8, Oct 66.

Middle-aged whites in Nebraska have had persistently low death rates for many years, for all causes as well as

for the cardiovascular diseases. The causes for the low rates are unknown. There is substantial evidence that they are not an artifact of data collecting methods nor to any appreciable extent due to ethnic composition. These findings provide a challenge for further epidemiological study. 1 table. 3 figures. 19 references. (AEd)

428. SCHINZ, H. R., REICH, T.
Changes in cancer risk in Switzerland during the last ten years. (Part I of III)
Schweiz Med Wschr 94:1741-3, 12 Dec 64 (GER)

Changes in the cancer risk in Switzerland over the last decade are discussed. Some organs show a significant fall in cancer incidence in all age groups. Other organs show a decline in incidence in the younger age groups and a rise in older people. The theory of "simulated" age disposition, whereby the age at which cancer occurs is determined not by the age of the organism but by the size of the average carcinogenic dose per time unit is discussed. 6 figures. (AEd)

203. SCHOTTENFELD, D., HOUDE, R. W.
The changing pattern of cancer morbidity and mortality and its implications.
Med Clin N Amer 50:613-30, May 66.

204. SCHUMAN, L. M.
The epidemiology of thrombo-embolic disorders. A review.
J Chronic Dis 18:815-45, Aug 65.

429. SCHWARTZ, D., LESSERRE, O., FLAMANT, R.
Alcohol and cancer, a study of geographic pathology concerning 19 countries.
Europ J Cancer 2:267-72, Dec 66.

A study of geographical pathology has been carried out in 19 countries in which the correlation between cancer mortality and alcoholism was investigated. The latter was measured either by cirrhosis mortality or alcohol ingestion. This study confirms that a relation exists between cancer of the upper aero-digestive region and of the esophagus. However, it is not possible to specify whether the correlation is accounted for by an etiological factor, or is due to a factor which carries a bad prognosis. In addition, an unexpected and positive correlation with bone cancer was found. This could conceivably be due to bone metastases associated with cancer of the upper digestive tract, caused by alcohol. However, no data are available to support this hypothesis. (AEd)

430. SEGI, M.
Formal discussion: Epidemiology of cancer: Spatial-temporal aggregation.
Cancer Res 25:1375-9, Sep 65.

Successive cancer morbidity surveys have been done in Denmark and U.S. Since 1956, accumulated data on cancer mortality in 24 countries have been obtained, and every two years age-adjusted rates for selected sites obtained (1960-61 latest). The rates among males are high in Austria, Scotland, and Finland, and low in Portugal, Israel, and Norway. For females, they are high in Chile, Denmark, and Austria and lowest in Portugal, Japan, and Australia. Male cancer is increasing, female decreasing, particularly in the U.S. The total number of cases does not vary greatly among countries but the distribution by site does. Rates for various countries are given. The current trend indicates that ratios among both sexes are decreasing. Tables. (Ed)

431. SEGI, M., MATSUYAMA, T.
Lung cancer in Japan and in foreign countries.
Jap J Clin Med 24:390-4, Mar 66. (JAP)

No English summary.

432. SELTZER, C. C.
Some re-evaluations of the build and blood pressure study, 1959 as related to ponderal index, somatotype and mortality.
New Eng J Med 274:254-9, 3 Feb 66.

An analysis of data (for men) from the "Build and Blood Pressure Study" of 1959, on mortality ratios by ponderal index has shown that instead of a straight line relation of increasing mortality with increasing height and weight, there is a curvilinear exponential relation of mortality with linearity and laterality of body form in which there is no significant excess of actual mortality over expected, until the level of extreme laterality is reached. Men with extreme laterality of body build are predominantly frankly obese. Below extreme laterality the trend toward increased mortality is low. Physique in the somatotypic sense is an important factor in health and longevity. Life insurance tables are misleading and should be discouraged. Obesity may be blamed for disease, when it is really body build. There is a pressing need for the accumulation of more descriptive body build data. 1 table. 1 figure. 20 references. (AEd)

433. SHIELDS, L. M., NAYLOR, A.
Cardiovascular mortality in New Mexico. Relation of cardiovascular deaths to total mortality for five ethnic groups.
Rocky Mountain Med J 63:54-7, Sep 66.

Analysis of cardiovascular deaths, 1954-1963, suggests that the non-Anglo ethnic segments may account in part for the lower mortality from these diseases in New Mexico. Death rates among the 5 New Mexico ethnic groups differed significantly. The incidence of cardiovascular deaths, as a percentage of the ethnic population alive at the beginning of each decade, is significantly higher in Anglo males ages 50 and over. Past age 40, the proportion of deaths from all causes is also highest for Anglo men. 2 tables. 5 references. (AEd)

207. SHIGEMATSU, I.
Epidemiological consideration on the changes of tuberculosis.
Jap J Tuberc 13:Suppl:1-26, Dec 66.

209. SHIMKIN, M. B.
Epidemiology of cancer: Spatial-temporal aggregation.
Cancer Res 25:1363-74, Sep 65.

434. SIGURJONSSON, J.
Index rates for comparing the importance of arteriosclerotic and degenerative heart diseases as a cause of death.
Amer J Med Sci 250:395-401, Oct 65.

Because of the steep rise in mortality from a arteriosclerotic and degenerative heart diseases with advancing age, the deaths occurring at old age have a dominating effect on the crude death rate. Also, lack of uniformity in recording causes of death at old age in different countries or at different times may impair comparability of the crude rate to a considerable degree, and this effect is not eliminated by standardization. For these reasons and

others, the mortality at middle and early advanced age is poorly reflected in the crude rate. Mortality rate for the age period 35-64 years would serve much better than the crude rate as an index for judging the comparative importance of arteriosclerotic and degenerative heart diseases as causes of death. 3 tables. 3 figures. 2 references. (AEd)

435. SIGURJONSSON, J.
Trends in mortality from cancer, with special reference to gastric cancer in Iceland.
J Nat Cancer Inst 36:899-907, May 66.

Revised statistics on cancer mortality in Iceland were obtained by examination of all death records with cancer deaths according to the 7th Revised International Classification of Diseases. These lists were compiled by the district physicians beginning in 1932 to 1963. No real increase was found in overall cancer mortality during the period studied. The increase in standardized rates is explained by underreporting of old people in earlier years. Iceland still has unusually high gastric cancer rates, although a downward trend has started recently. Rates for gastric cancer in both sexes are appreciably lower than in Japan and Chile, but the rate for males is higher than in any country in Western Europe, and the rate for females is matched only by Finland and Austria. 4 tables. 3 figures. 8 references. (AEd)

436. SLACK, J., EVANS, K. A.
The increased risk of death from ischemic heart disease in first degree relatives of 121 men and 96 women with ischemic heart disease.
J Med Genet 3:239-57, Dec 66.

Health experience of all adult first degree relatives of 121 men and 96 women with ischemic heart disease (IHD) and 104 men and 105 women controls is reported. Causes of death and morbidity have been documented, and causes of death classified by Registrar General Staff, using criteria current at date of death. A comparison has been made of death from IHD in relatives and in the general population in England and Wales, with relatives of IHD patients. Relatives of patients had 5-7 times the risk of mortality from IHD as the general population. Evidence indicates that the increased risk may be partly due to genetic factors. 4 tables. 7 references. 2 appendixes. (AEd)

212. SMITH, T.
Social stress and cardiovascular disease. Factors involving sociocultural incongruity and change. A review of empirical findings.
Milbank Mem Fund Quart 45:Suppl:23-39, Apr 67.

437. SPRINGETT, V. H.
The beginning of the end of the increase in mortality from carcinoma of the lung.
Thorax 21:132-8, Mar 66.

By age distribution, carcinoma of the lung mortality among males is at a maximum at ages 60-74. Maximum for other cancer sites is at ages 80 or older. Increase in mortality from cancer of the lung ceased after 1945 for ages 40-45, after 1950 for ages 45-49, after 1955 for ages 50-54, and after 1960 for ages 55-59; the increase is ending with the cohort born in the early 1900's. Among women, it is at a much lower level than among men, but increases with advancing age. Results are compatible with an association between smoking and cancer of the lung, since men 60-64 years of age have been exposed to current patterns of cigarette smoking all their lives. Smoking is now decreasing slowly among men but continues to increase among women. 2 tables. 8 figures. 18 references. (AEd)

438. STAMLER, J., FIELDS, C., ANDELMAN, S. L.
Epidemiology of cancer of the cervix. I. The dimensions of the problem: mortality and morbidity from cancer of the cervix.
Amer J Public Health 57:791-803, May 1967.

Mortality from uterine cancer (mainly cervical) has declined over the years in the U.S., more for white than for nonwhite women. Among the latter, it remains the chief neoplastic cause of death. Data on prevalence and incidence of clinically diagnosed invasive carcinoma of the cervix are not available for the U.S. as a whole, so that estimates must be made from studies in states and other subdivisions. Prevalence is estimated at 120,000 women, with an incidence of about 20,000 per year. About 250,000 women have carcinoma in situ. Prevalence, incidence, and mortality rates are significantly higher among Negro women and lower among lower income women generally. 7 tables. 11 figures. 8 references. (Ed)

439. STANDFAST, S. J.
Birth characteristics of women dying from breast cancer.
J Nat Cancer Inst 39:33-42, Jul 67.

Data from birth certificates of 229 white women dying from breast cancer in upstate New York at ages 40-44 and a matched control group from the same birth cohort demonstrated a differential risk of death from breast cancer associated with mother's age at birth of the study subject. The relative risk of dying from breast cancer increased with increasing maternal age beyond 30 years. This association with maternal age was independent of birth order and was most pronounced for women who had never married. The breast cancer cases also included an excess of women born in urban areas, independent of maternal age. No association was noted between death from breast cancer and month of birth or plurality. 10 tables. 2 figures. 11 references. (AA)

440. STARK, C. R., OLEINICK, A.
Urban or rural residence and histologic type distribution in 21,000 childhood leukemia deaths in the United States, 1950-59.
J Nat Cancer Inst 37:369-79, Sep 66.

Age, sex, race, year of death, and urban-rural specific leukemia mortality rates for 20,711 leukemia deaths in the U.S., 1950-59, were compared with previous studies of childhood leukemia by histologic and urban-rural residence. Among white children, urban rates exceeded rural rates, but among nonwhites the reverse was true. Except for myelocytic leukemia, urban rates in whites appear to be increasing with time, but rural rates are declining. Data from the present study and from the studies reviewed suggest that lymphocytic and myelocytic forms of the disease are distinct. A comparison of white and nonwhite mortality rates indicates that myelocytic leukemia has a common etiology in whites and nonwhites, but nonwhites are either not exposed to, or are protected against, agents causing lymphocytic leukemia. (AA)

441. STASZEWSKI, J.
Breast cancer in different population groups.
Nowotwory 16:379-84, Oct-Dec 66.

Data on breast cancer frequency were reviewed. Major observations are: (1) A very low frequency of breast cancer in Japan and a relatively low frequency in Poland, distinctly lower, even than Finland, (2) A higher frequency in the urban and wealthy areas as compared with rural and poor areas, (3) Stability of breast cancer frequency in many countries, (4) A higher rate of increase of breast cancer frequency with age before, rather than after, menopause. 2 figures. 25 references. (AEd)

442. STASZEWSKI, J., HAENZEL, W.
Cancer mortality among the Polish-born in the United States.
J Nat Cancer Inst 35:291-7, Aug 65.

Age-specific cancer death rates for Polish migrants to the U.S. have been compared with experience reported for Poland and U.S. native whites. The site-specific displacements in mortality for migrants from those recorded in home and host countries were in general accord with results previously published for 6 other ethnic groups in the U.S. Poles deviated from the pattern for lung cancer set by other ethnic groups, the risks for male migrants following esophagus and larynx in displaying rates higher than for native Poles and U.S. native whites, rather than assuming a position intermediate to home and host country. 1 table. 1 figure. 12 references. (AEd)

216. STEINMANN, B.
Epidemiology of apoplexy.
Schweiz Med Wschr 96:1733-40, 31 Dec 66.

221. SUAREZ, R. M., SUAREZ, R. M., JR.
Morbidity and mortality in aged Puerto Ricans.
J Amer Geriat Soc 13:805-14, Sep 65.

443. SYROVATKA, A., VONDRACEK, J., MACHKOVA, B.
Accident mortality of children 1-14 years of age in Czechoslovakia during 1950-1963.
Cesk Zdrav 13:456-65, Sep 65. (CZ)

Accident mortality in Czechoslovakia of children aged 1-14 years declined by 33% between 1950-1952 and 1961-1963. Traffic deaths increased during the same periods from 44/100,000 to 64. Younger children, ages 1-9 had an increased mortality in Slovakian Bohemia, but older children had a reduced rate. As far as the preschool child is concerned, accidents (including drowning) take a high toll of life. These injuries often happen in the home. The declining death rate is probably due to the work of pediatricians and nurses during their home visits. 5 tables. 14 graphs (AEd)

444. TIRNAVEANU, B.
Evolution of the mortality and morbidity of cardiovascular diseases in the Rumanian Peoples' Republic.
Stud Cercet Med Intern 5:287-96, 64. (RUM)

No English summary.

445. TIRNAVEANU, B.
Mortality and morbidity caused by vascular lesions affecting the central nervous system in the Rumanian Socialist Republic.
Neurologia (Bucur) 11:343-50, Jul-Aug 66. (RUM)

A study of mortality from vascular cerebral lesions affecting the central nervous system, 1932-1963, of specific morbidity rates, 1958-1965, and of data from the morbidity survey of 1959-61. Increasing gravity of the mortality from these affections is due mainly to an increase in the average life span, increase in the proportion of the aged population, and to the control of communicable and acute diseases. Age-specific mortality is characterized by decreases in age groups over 55 years of age. Morbidity rates increase parallel to age, the increment being more accentuated with age after 55. Both mortality and morbidity are, in general, higher in regions with a large proportion of aged persons. 2 tables. 4 figures. 6 references. (AEd)

446. TOKUHATA, G. K.
Epidemiology of cancer of the cervix. IV. Tobacco and cancer of the genitalia among married women.
Amer J Public Health 57:830-9, May 67.

From the death registries of Memphis and Shelby Counties, Tennessee, ever-married women who died of cancer of the genitalia or breast since 1950 were selected as cases (283) and ever-married women dying of other causes were selected as controls (1,463). Information on tobacco habits, pregnancy history, and demographic characteristics were obtained from the surviving family. More cases than controls were tobacco users and were more likely to have used snuff and/or chewing tobacco. Socioeconomic factors as well as other characteristics do not account for the differences between cases and controls. However, since nontobacco users also died of cancer of the genitalia and breast, other factors must be considered. 9 tables. 14 references. (Ed)

447. TRACY, R. E.
Sex difference in coronary disease: Two opposing views.
J Chronic Dis 19:245-51, Nov-Dec 66.

Coronary heart disease among U.S. whites, as revealed by vital statistics, increases steadily with age, and is less at all ages in women. These two factual observations are examined. Sex differences in cardiovascular disease death rates were reviewed and analyzed by relating male/female ratios to age and by plotting the logarithm of age-specific-death rates against age. Although the male/female ratios reach a peak in midlife in most sets of data, the correspondence of this peak with menopause is rather crude. In various nations of the world, the peak sex death ratios for "arteriosclerotic and degenerative heart disease" range from ages 30-35 in the Netherlands to ages 55-60 in Japan. The semilogarithmic plots were very nearly rectilinear under most circumstances and revealed an absence of an effect by menopause in all cases. 5 figures. 8 references. (AEd)

448. TRAUGER, D. A.
Trends of age at death from tuberculosis.
Pub Health Rep 80:925-6, Oct 65.

Tuberculosis has changed in its role as a killer in the U.S. In 1910, the median age at death of persons with TB was 33; in 1962, 61.5 years. However, TB does exert a life-shortening effect. Median age at death is given, by sex and color, 1924-1962, and by sex, color, and life expectancy, 1962. For white men, the life-shortening effect of TB is on the order of 5%; for nonwhite women, who die of TB 15 years earlier than white women, 30%. 2 tables. 1 reference. (Ed)

449. TSUKAHARA, Y.
Trends in age-adjusted death rates for 20 causes in 30 countries 1950 to 1961.
Tohoku J Exp Med 88:385-93, 25 Apr 66.

International comparisons of mortality, using biennial age-adjusted death rates calculated for 20 causes in 30 countries, standardized against the total population of 46 countries around 1950. Trends in rates, 1950-1961, and geographical distributions, 1960-1961, are observed. The common declining trends in most countries exist in some causes, such as tuberculosis, nephritis, and nephrosis. Rates for vascular lesions affecting central nervous system, however, show an increase in some countries but a decrease in others. A marked difference between trends among males and females is found in malignant neoplasms, heart disease, and bronchitis. 2 tables. 11 references. (AEd)

450. VOORST VADER, P. J., VAN
Relation between smoking and mortality in the Netherlands during 1963.
Nederl T Geneesk 109:601-8, 27 Mar 65. (DUT)

Some observations on the relationship between smoking and death rates, with special reference to *Smoking and Health,* the report of the Terry Committee. A causal relationship between smoking on the one hand and lung cancer and chronic bronchitis on the other must now be considered proven. A causal relationship between smoking and coronary disease is highly probable. On the basis of available facts, it is estimated that in 1963 at least 10,519 Dutch males died as a result of smoking, i.e. 20% of the total number of men who died in that year. 6 tables. 6 figures. 13 references. (AA)

451. WALLACE, D. C.
A study of the natural history of cerebral vascular disease.
Med J Aust 1:90-5, 21 Jan 67.

Findings in a community survey of stroke in Australia for 1957 were: (1) crude incidence of 3.3 per 1,000 persons, affecting 7 women for every 5 men, (2) about 1/3 die during the first attack, (3) of the survivors, about 1 in 3 will have a recurrence during the next 2 years, (4) mortality per recurrent attack remains about 1 in 3, (5) 2 of 3 who suffer 1 recurrent attack will have another recurrence within 2 years, (6) 14 months after the completion of case taking, 56% of the subjects were dead, 32% were living and had had no recurrence, and 9% were living but had had recurrences. 7 tables. 9 references. (AEd)

452. WARREN, S., LOMBARD, O. M.
New data on the effects of ionizing radiation of radiologists.
Arch Environ Health 13:415-21, Oct 66.

The average age at death of U.S. radiologists in the past has been lower than that of other physicians or of U.S. adult white males. Since 1935 this evidence of life-shortening has been lessened, most strikingly since 1945, and has disappeared by 1960. Leukemia, though excessive among radiologists, occurs rarely and apparently only after a number of years of occupational exposure. The age pattern of the incidence of leukemia is quite different in radiologists and U.S. white males over age 25. In recent years the excessive incidence of leukemia in radiologists has decreased. From these findings, one may conclude that current occupational maximal permissible dose levels provide adequate protection. 6 tables. 21 references. (AA)

453. WEBER, A.
Some characteristics of mortality and morbidity in Europe.
WHO Public Health Pap 27:131-48, 65.

Mortality data reflect the diversity of the health situation in Europe: in the North, deaths are primarily among older persons; in the South, among children. Data for several countries, 1951-52, are compared with 1958-59. The drop in mortality in Europe is essentially due to decrease in deaths from infectious diseases. 6 tables. 11 references.

454. WELLS, R., KUPKEE, L.
The lost years: important causes of death in Australia, 1963.
Med J Aust 2:466-8, 2 Sep 66.

In terms of years of life lost, the important diseases fall into the following groups: (1) accidents, poisoning, and violence, (2) diseases of early infancy, (3) circulatory system diseases, and (4) neoplasms. A table showing "lost years of working life" is also given. 2 tables. (AEd)

455. WELLS, R., KUPKEE, L.
The safety zones: differential mortality rates in Australia, 1961-1963.
Med J Aust 2:573-4, 17 Sep 66.

Mortality rates in Australia, 1961-1963. The incidence of many diseases is related to climate, to industrial development of an area, and to specific development of the populations as well as to specific occupations of the population. In comparing rates in the country, age and area differences in classification and diagnosis of disease must be considered. 1 table. 4 references. (Ed)

456. WEST, C. D.
Mortality rates as a measure of progress.
J Pediat 65:1064-70, Dec 64. Part 2.

Presidential address at June 1964 meeting of the Society for Pediatric Research, Seattle, Washington. A survey of developments in pediatrics during the past half century, with observations on the reasons why the mortality rate has not been decreasing as rapidly since 1950 as it did in the preceding 10-15 years. The effect of medical research on the mortality rate and the impact of Federal appropriations for medical research (begun in 1946) are considered. Today, the primary event in most of the diseases we are up against is an abnormality of the cell itself. 6 figures. 1 reference. (AEd)

457. WESTLUND, K., NICOLAYSEN, R.
Serum cholesterol and risk of mortality and morbidity. A 3-year followup of 6,886 men.
Scand J Clin Lab Invest 18:Suppl 87:1-19, 66.

The institute for Nutrition Research determined serum cholesterol for 6,886 men, ages 40-59, and working in Oslo. Blood pressure and weight/height relationship were available as co-variables. The men were followed for 3 years. Coronary heart disease plus sudden death increased linearly with serum cholesterol. Blood pressure was a less efficient predictor of coronary heart disease

than serum cholesterol. Systolic pressure predicted slightly better than diastolic. Men with systolic pressure 155 or more had an incidence well above that of other men at all cholesterol levels. On the whole, the results for coronary heart disease were similar to the results in American studies. In addition, the study included the incidence of atherosclerosis obliterans, apoplexy, diabetes mellitus, and malignant tumors. 20 tables. 6 figures. 8 references. (AEd)

458. WUST, G.
Tumor incidence and age.
Z Alternsforsch 18:318-28, Nov 65.

Analysis of cause of death data gives, for malignant tumors, a typical predilection age. This knowledge is of considerable importance to diagnostic assessment when clinical symptoms are unclear. High cancer mortality in females ages 25-55 is attributed to the particular susceptibility of female genital system to cancer. The predilection age is about middle life. The lower cancer mortality rate in persons over age 80 is probably due to incorrect diagnoses and to poor reporting. Incidence of malignant tumors is still the same despite increases and decreases in individual cancer locations. Bronchial carcinoma has increased with the frequency shifted to younger ages, while gastric and esophageal carcinomas decreased. 2 tables. 27 references. (AEd)

459. WYNDER, E. L., HYAMS, L., SHIGEMATSU, T.
Correlations of international cancer death rates. An epidemiological exercise.
Cancer 20:113-26, Jan 67.

The relationships of 12 pairs of international cancer death rates have been examined with scatter diagrams and the magnitude of the association has been evaluated with rank correlation coefficients. An epidemiological interpretation has been attempted in spite of some obvious methodological limitations, since these data may serve as a useful tool to substantiate existing epidemiological theory and provide etiological clues. Several significant and interesting relationships are discussed. The complications of a correlation are discussed. 1 table. 14 figures. 20 references. (Ed)

460. WYNDER, E. L., SHIGEMATSU, T.
Environmental factors of cancer of the colon and rectum.
Cancer 20:1520-61, Sep 67.

In 1964, 41,763 persons died of cancer of the large bowel (14% of all cancer deaths). A retrospective investigation of 791 patients with cancer of the large bowel (458 were men) plus age-matched controls. Incidence was related to ethnic group, socioeconomic status, dietary factors, obesity, familial aggregation. Other factors were studied, and it is suggested that the two components of cancer of the large bowel, i.e. colon and rectum, are etiologically dissimilar. 24 tables. 19 figures. 210 references. (AEd)

461. ZEIDBERG, L. D., HORTON, R. J., LANDAU, E.
The Nashville air pollution study. VI. Cardiovascular disease mortality in relation to air pollution.
Arch Environ Health (Chicago) 15:225-36, Aug 67.

A study of cardiovascular disease mortality in relation to air pollution and socioeconomic factors for Nashville SMSA's, 1949-1960. For constant air pollution exposure, socioeconomic status was inversely related to cardiovascular disease mortality except for arteriosclerotic heart disease, which was directly related. Sex, color, and age differentials in cardiovascular disease mortality were studied at different pollution levels. 3 tables. 5 figures. 16 references. (AEd)

III. MATERNAL AND INFANT STUDIES

A. FERTILITY

462. ANONYMOUS.
Baby boom ending.
Statist Bull Metrop Life Insur Co 1-3, Oct 66.

The birth rate in 1965 in the U.S. has declined, continuing the trend since 1957. Much of the decline is due to a decline in birth rates for second and higher order births. Marriages among WWII babies and draft deferments for men with children should result in an increase in the number of first births, offsetting the decrease in higher order births and bringing the total birth rate to record highs in the 1970's, (Ed)

463. ANONYMOUS.
Population gains in the United States and Canada.
Statist Bull Metrop Life Insur Co 48:3-6, Jan 67.

Increases in the population in 1966 through migration and births are analyzed by state (U.S.) and province (Canada). 2 tables. (Ed)

464. ABU-LUGHOD, J.
The emergence of differential fertility in urban Egypt.
Milbank Mem Fund Quart 43:235-53, Apr 65, Part I.

Egypt has experienced a radical drop in mortality rates unmatched by any decrease in fertility. According to demographic theory, the beginning of an overall decline in fertility will be signaled by significant fertility differences by socioeconomic class in the urban segment. In the census of 1960, data are given on the number of live born children, by age and education of wife, and occupation of husband. These data are analyzed for Cairo, and they substantiate the emergence by 1960 of significant fertility differentials. If the present differentials by education and occupation are sustained in the coming generation, a gradual decline in fertility is anticipated as education becomes more widespread and as norms alter in conformity with those already well established within the better-education and upper-occupational urban classes. 7 tables. 3 figures. References in footnotes. (AEd)

465. BAJEMA, C. J.
Relation of fertility to educational attainment in a Kalamazoo public school population: A followup study.
Eugen Quart 13:306-15, Dec 66.

A followup of 957 native white individuals, born 1916-1917, who took the Terman Group IQ Test in the 6th grade in the Kalamazoo public school system. The data were divided into three educational attainment groups (6-11 years, 12-15, 16 plus). The relationship between educational attainment and fertility is negative for females and positive for males. The fact that the relationship between IQ and fertility as measured by correlation and regression coefficients was positive for each of the 3 education groups, while the mean fertility of the 3 education groups was negatively related to educational attainment indicates that the use of fertility data, subdivided into 12-15 years and 16 plus years, to estimate the relationship between IQ and fertility may lead to erroneous conclusions. 4 tables. 18 references. (AEd)

466. BLAKE, J.
Demographic science and the redirection of population policy.
J Chronic Dis 18:1181-200, Nov 65.

To date, efforts at curtailing population growth in developing countries have been bipolarized into the 'economic development' approach, on the one hand, and the family planning approach on the other. The first sees decreases in family size as the long-range resultant of a complete socioeconomic overhauling which, in turn, leads to a desire for fewer children. The second overlooks the institutionalization of reproduction entirely and assumes that education and communication regarding birth control will eventually reduce births to a level in keeping with low mortality. Regardless of specific paths taken by population policy, its designers cannot afford to overlook the lesson already available in the substantial family-size desires and actualities to be found in presently industrial countries. Modernization and birth control alone will clearly not bring family size into line with modern levels of mortality unless this reproductive institution is itself modified to make the small family a way of life. 6 tables. Footnote references. (AEd)

467. BLAKE, J.
Family size in the 1960's—a baffling fad
Eugen Quart 14:60-74, Mar 67.

Crude birth rate decline in the U.S. began in 1958 and continued through the first part of 1966. This paper disputes the allegation that demographers as a whole did not anticipate and do not understand the present drop in birth rates. The notion that family size has become "the subject of fad and fashion" is evaluated by analysis of data on ideal family size from the 1963 and 1966 Gallup polls, which actually show no noteworthy shift in family size ideals among white Americans. The main ideal family size among women varies between 3.4 and 3.6 children. Catholics now show desire for fewer children than formerly and it is among them that the most noticeable drop in birth rates occurred in the 1960's. If family size has become "the subject of fad and fashion" in U.S., evidence for this thesis must come from sources other than the actual fertility or reproductive ideals of Americans. 12 tables. 31 references. (Ed)

468. BOGUE, D. J., FARLEY, R.
Population growth, problems, and trends in the United States.
Amer J Public Health 56:Suppl:85-93, Jan 66.

Past growth of the U.S. population and major trends are reviewed. It is estimated that even if the current high birthrate declines, the population will grow rapidly. If, among the several population projections that the Census Bureau has made, the projection of *lowest* fertility is assumed, the U.S. population will be 300 million in less than 40 years. Changes in education, employment opportunities, and other consequences of increased growth are discussed. 1 table. 26 references. (AEd)

469. CAMPBELL, A. A.
Fertility and family planning among nonwhite married couples in the United States.
Eugen Quart 12:124-31, Sep 65.

Nonwhite couples have had and expect more births than white partly because of the unusually high fertility of a minority of nonwhite couples who live in the rural South, and partly because of the moderately high fertility of the many nonwhite couples who have Southern farm origins. Nonwhite couples with no Southern farm background have and expect about the same number of births as similar white couples. These differentials suggest that as the influence of Southern rural patterns of mating and childbearing diminishes, the fertility differences between whites and nonwhites will decline. 5 tables. (AEd)

470. CAMPBELL, A. A., CLAGUE, A., GODLEY, F.
Natality statistics analysis, U.S., 1964
Vital and Health Statistics. Series 21, No. 11, Feb 67.

Analytical study of recent fertility trends in terms of period and cohort measures. Discusses variations in fertility of major population groups, by race and place of residence, including Puerto Rico and the Virgin Islands. Also a discussion of characteristics of live births including birth weight, period of gestation, attendant at birth, month of birth, plurality, sex, and legitimacy. 21 tables. (AA)

471. CAMPBELL, A. A., CLAGUE, A., GODLEY, F.
Natality statistics analysis, U.S., 1963
Vital and Health Statistics. Series 21, No. 8, Mar 66.

Statistics for births in the U.S. in 1963. Women who had completed the childbearing period (those 50 years of age) had 2.3 children while those 30 years of age had borne 2.6 children. 99% of white and 88% of nonwhite live births were delivered in hospitals. In several Southern States, over 20% of the nonwhite births were not attended by doctors. About 8 out of 100 newborns weighed less than 2,500 grams. About 6% of all births and 18% of births to women under age 20 were illegitimate. 15 tables. (AEd)

472. COWGILL, U. M.
Recent variations in the season of birth in Puerto Rico.
Proc Nat Acad Sci USA 52:1149-51, Nov 64.

Since 1941, season of birth patterns in Puerto Rico have gradually shifted from being similar to European patterns to now being entirely like that of the continental U.S. A huge maximum appears in September and the annual low occurs in May and June. Data for the U.S. and Puerto Rico are given for 5-year periods for 1941-1961. Examination of various areas of the world where monthly natality statistics are available indicates that season of birth is largely meteorologically controlled. This does not appear to be the case in either Puerto Rico or continental U.S. 1 figure. (AEd)

473. CZEIZEL, E., ELEK, E.
Seasonal changes in the frequency of fetal damage and fertility
Orv Hetil 107:2466-9, 25 Dec 66. (HUN)

Data for Hungary, 1957-63, indicate that live births between February and May exceed the annual average, while those between October and January do not reach it. Stillbirths are higher than average between November and April and lower than average between June and September. Premature births are less frequent from June to October. No seasonality was found for cases of spontaneous abortion. Conceptions are rare in late winter and early spring and increase in frequency in the summer months. (From Excerpta Medica Sec 10, Vol 21, No. 3, Mar 68.) (Ed)

474. DAMON, A., THOMAS, R. B.
Fertility and physique-height, weight, and ponderal index.
Hum Biol 39:5-13, Feb 67.

Among 2,616 men measured at Harvard College between 1880 and 1912, the 1,511 who subsequently married and had children were 0.8 cm taller than the 578 who remained single and 1.0 cm taller than the 527 who married but had no children. The three groups of men did not differ in weight or in ponderal index, (height/$\sqrt[3]{\text{weight}}$). The 1,511 fathers showed no association between ultimate fertility and height, weight, or ponderal index. 3 tables. 8 references. (AA)

475. DAY, L. H.
Fertility differentials among Catholics in Australia.
Milbank Mem Fund Quart 42:57-83, Apr 64.

Data from a 20% sample of Catholic wives in the Australian Census of 1954. The time trend of completed fertility was analyzed, standardizing for age at marriage and duration of marriage. Fertility declines were greater among urban than rural wives. Italian-born wives had the greatest fertility declines. Median number of children was lowest among the Australian, British, and Italian-born; then the Polish-born; and highest among the Netherlands-born wives. (AEd)

476. DICE, L. R., CLARK, P. J., GILBERT, R. I.
Relation of fertility to religious affiliation and to church attendance in Ann Arbor, Michigan, 1951-54.
Eugen Quart 12:102-11, Jun 65.

A random sample of the resident population of Ann Arbor, Michigan, 1951-54, is analyzed by religious affiliation, church attendance, and fertility. No significant relation between number of children and religious affiliation is indicated. Nor is there a significant relation between fertility and frequency of church attendance. Level of education does not vary significantly among the major religious groups represented in Ann Arbor, either for the males or the females in the 40-70 age group. Occupation and amount of income per year earned by the males aged 40-70 years likewise does not vary significantly among the major religious groups. It is suggested that the absence of a differential in fertility among the major religious groups in Ann Arbor is the result of the general similarity of these groups in their levels of education, classes of occupation, and amount of earned income. 5 tables. 9 references. (AEd)

477. DUNCAN, O. D.
Residential areas and differential fertility.
Eugen Quart 11:82-9, Jun 64.

This paper examines fertility differences by residence and simultaneously by socioeconomic characteristics of the individual married couples. A real classification of rent levels produces fertility variations which are partially independent of and additive to those due to the

classification of individual dwelling units by rent. Variation in fertility by socioeconomic level of residential area may be partly due to such associated factors as education, age at marriage, regional origin and tenure, as well as rent paid. 2 tables. 8 references. (AEd)

337. FREDERIKSEN, H.
Determinants and consequences of mortality and fertility trends.
Pub Health Rep 81:715-27, Aug 66.

478. FREEDMAN, R., COOMBS, L.
Childspacing and family economic position.
Amer Sociol Rev 31:631-48, Oct 66.

The timing of births after marriage has a strong and consistent relationship to the economic position of a sample of white Detroit couples who recently had a 1st, 2nd, or 4th birth. A couple's economic position is better the longer the interval between marriage and the 1st birth. Those wives already pregnant at marriage are particularly disadvantaged economically. Whether early and rapid family growth causes relatively low income status cannot be determined from these data. The question is whether some factor not treated in this analysis accounts both for the timing of the marriage and births and the economic history of the family. Even for husbands with good educational preparation, rapid family growth is associated with a less favorable economic position. Couples who were pregnant at marriage constitute about 20% of the sample and they continue to have children more quickly than others. (AEd)

479. GIBSON, J. B.
Differential fertility and social mobility. Interim report of a survey.
Eugen Rev 58:23-4, Mar 66.

A previous pilot survey in Cambridge confirmed that the paradox of the measured IQ level of the population failing to decline despite an apparent negative correlation between IQ and family size was due to the high proportion of unmarried and/or married but not reproducing people in the lower socioeconomic classes. Differential fertility data had shown a bimodal relationship between IQ and fertility. Present work is concentrating on a comparative survey of differential fertility and social mobility in a high IQ group (Cambridge Scientists) and a group taken from the manual/nonmanual socioeconomic boundary (laboratory workers). The Weschler Adult Intelligence Scale is being used. (AEd)

480. GODLEY, F. H.
Fertility and educational attainment, Puerto Rico, 1962
Vital and Health Statistics. Series 21, No. 12, Sep 67.

Statistics on education of parents of children born in 1962 in Puerto Rico, the first area of the U.S. birth registration system to report this information. This report illustrates the usefulness of such data as indexes of socioeconomic status, to which the fertility rates of the mothers and the characteristics of the newborn infants are related. Associated with increasing levels of education were declines in: annual fertility rates among women near the beginning or the end of their childbearing period, order of birth, immaturity, post maturity, and illegitimacy. Characteristics found to increase with the parents' educational attainment were: residence in a metropolitan area, a legal as opposed to a consensual form of marriage, and the occurrence of the birth in the last quarter of the calendar year. Medical, psychological, and socioeconomic implications of these relationships are discussed. 10 tables. (AEd)

481. GOLDSTEIN, S., MAYER, K. B.
Residence and status differences in fertility.
Milbank Mem Fund Quart 43:291-310, Jul 65.

An investigation of the relation between fertility and residence, in census tracts of Rhode Island. Analyses based on 1950 Census statistics found higher fertility on the fringes of the metropolitan area than in the central cities. Recent national surveys found small differences in fertility between suburban couples and those in large cities. The 1960 Census data show that higher suburban fertility is restricted to high status suburbs. In the two survey studies it is concluded that place of residence and socioeconomic status are not significantly related to completed fertility. The complexity of the relation between fertility and residence points to the desirability of undertaking similar analyses in other areas. 4 tables. References. (AEd)

482. GRUNT, J.
Trends in the natality of the agricultural population.
Cesk Hyg 10:331-4, Jul 65. (CZ)

Emphasizes the need for studies of differential fertility of the agricultural population of Czechoslovakia. High fertility of the agricultural population has been decreasing while the lower fertility of the nonagricultural population has not, due in part to shift of population from agricultural to nonagricultural areas. Fertility in villages remains higher than in towns because of the agricultural component of the villages. 12 references. (Ed)

483. HERMALIN, A. I.
The effect of changes in mortality rates on population growth and age distribution in the United States.
Milbank Mem Fund Quart 44:451-69, Oct 66.

In the first part of this century, mortality improvement had only a slight effect on age composition in the direction of a younger population. It created the potentiality for very rapid growth in the future by bringing close to 100% the proportion of those surviving from birth to parenthood. For the latter part of the century, any general mortality improvement will make the population older but will have very slight effect on population growth. In this century, fertility has been the chief determinant of age structure and increasingly will be the sole determinant of population growth. In the U.S. with fertility largely under voluntary control, the level of fertility will apparently vary with social and economic conditions. This means that a changing age structure and fluctuating growth are likely, with periods of aging alternating with periods of rejuvenation and with sporadic spirts and lulls in the rate of increase. 6 tables. 2 figures. 14 references. (AEd)

484. KISER, C. V.
Population trends and public health in Latin America.
Milbank Mem Fund Quart 45:43-59, Jan 67.

This paper examines the general relation of health to the growth, size, density, distribution, and characteristics of the population and to the components of population change, fertility, mortality, and migration. For each subject a few general observations are made before applying the case to Latin America. 15 references. (Ed)

485. LAL, A.
Nuptiality as an index of human fertility.
Indian Med J 58:255-6, Dec 64.

The association between nuptiality and human fertility is a long established one. Data corroborating the correlation between the two can be gathered from the U.N. and WHO. The data provide marriage and birth rates in 6 countries; it is concluded that crude marriage rate is a poor index of human fertility. It is further stated that the birth rates are unresponsive to the crude marriage rates but are highly sensitive to the marriage rates of the female marriageable age population in the countries cited. Marriage rates of the female marriageable age population rather than crude marriage rates should be adopted as an index of human fertility. (Ed)

486. LUNDE, A. S., OKADA, L. M., AND ROSENBERG, H. M.
Natality statistics analysis, U.S., 1962.
Vital and Health Statistics. Series 21, No. 1, Oct 64.

Analysis of fertility trends and discussion of plurality, seasonal variation, period of gestation, weight at birth, sex ratio, attendant at birth, and legitimacy. There is less childlessness in the population today and the trend is toward 2-4 children per family. There is a decline in families of 6 children or more. In 1962, over 97% of all births were delivered in hospitals, varying from less than 90% in some Southern states to 100% in New England. Alaska had the highest birth rate and Oregon and Pennsylvania the lowest. The largest number of births occurred in September, then August. About 6% of all births were illegitimate, and 41% of these were to women under age 20. 41 tables. (Ed)

487. MAULDIN, W. P.
Application of survey techniques to fertility studies.
J Chronic Dis 18:1215-31, Nov 65.

Results from a variety of studies in different parts of the world about desired family size are summarized. The reliability and validity of the survey data, as well as the lack of comparability among studies are discussed. 5 tables. 30 references. (Ed)

839. MAZUR, D. P.
The graduation of age-specific fertility rates by order of birth of child.
Hum Biol 39:53-64, Feb 67.

488. MEHLAN, K. H., FALKENTHAL, S.
Intervals between deliveries and their significance for the fertility and health of women.
Zbl Gynaek 85:837-47, 15 Jun 63. (GER)

Analyzes the division of birth intervals in the German Democratic Republic for the year 1960 and compares the estimated figures with those of 1901, 1911 and 1954. The tendency shows an increase in birth intervals (average 14 months between births); the sociological result is analyzed. Views are given on the sociological and psychological aspects of fertility. 6 tables. 8 references. (Ed)

489. MENAKER, W.
Lunar periodicity with reference to live births.
Amer J Obstet Gynec 98:1002-4, 1 Aug 67.

A half million live births, occurring during 37 synodic lunar months and constituting virtually all known births in New York City for 1961-63 were plotted on the synodic lunar cycle of 29.53 days. The half cycle with the highest birth rate began the day after the first quarter (FQ+1) and thus almost coincided with the brightest half of the lunar month (centered at full moon). This birth rate was 1.0% greater than that for the half cycle beginning the day after last quarter. The findings are compared with those reported in 1959. Literature dealing with lunar periodicity in the sexual or reproductive cycle of other mammals is briefly cited. 1 table. 13 references. (AA)

490. MINET, P. L.
Precocious fertility in a sample of marriages in a Canadian province.
Acta Genet (Basel) 14:186-96, 64. (FR)

Study of the fertility rate for 9,069 marriages, registered in British Columbia, 1954-1956. The frequency distribution of first births by duration of the marriage shows 2 peaks. The first, related to premarital conceptions, is at 0.6 years and the second at 0.8 years after the wedding. Fertility steadily decreases with increase in the mother's age at the time of the marriage, almost exclusively because of reduction of premarital conceptions. Birthplace of the parents has little influence on the frequency distribution of first births. The general pattern of fertility seems to be similar for couples (either the husband or the wife) who were born outside the province. The highest fertility rate is recorded for marriages between British Columbia-born parents; the lowest for immigrant parents. 7 figures. 14 references. (AEd)

491. MITCHELL, J. C.
Differential fertility amongst urban Africans in Northern Rhodesia.
Cent Afr J Med 10-195-211, Jun 64.

Data from social survey, 1951-1954, in towns of Northern Rhodesia show total births to women in 5-year age groups, and how many each group bore. Fertility ratios are given and discussed. Childlessness as a factor in fertility is illustrated by a diagram according to women in 5-year age groups. 6 tables. 12 references. (Ed)

492. MITRA, S.
Child-bearing pattern of American women.
Eugen Quart 13:133-40, Jun 66.

This paper is the first in a series of studies of differential fertility based on 1960 U.S. census figures for 1 in a thousand sample. A few aspects such as the extent of childlessness and the number of children born, by age and marriage duration, have been studied in this report. The study is limited to only those women who are married once and living with their husbands at the time of the census—86% of the presently married. Nonwhites exceed whites both in childlessness and at the other end of the continuum. In both groups, total number of children born increases with marriage duration and declines with increase in mother's age for a given marriage duration. 9 tables. 3 references. (Ed)

493. MITRA, S.
Education and fertility in the United States.
Eugen Quart 13:214-22, Sep 66.

Composition of women by education has undergone significant upward trend in the last decade, all ages, whites and nonwhites. Inverse relationship between education

and fertility persisted in 1960 but was reduced in intensity. For all age and education groups fertility has increased, and often the absolute increase has been directly related to education. The gap between highest and lowest educational categories has thus been reduced. White women aged 35-39 had on an average 2.5 to 3.2 children down the education axis in 1960. Corresponding range in 1950 was 1.7 to 2.9. Nonwhite women also exhibit similar decline in fertility differentials. This narrowing down of differential is more visible in women in urban than in rural areas. 9 tables. 3 references. (AEd)

494. MITRA, S.
Income, socioeconomic status, and fertility in the United States.
Eugen Quart 13:223-30, Sep 66.

Although there are quite a few exceptions, the inverse relationship between income and fertility has not totally disappeared, and such a relation is clearer for whites than nonwhites. Socioeconomic status (SES) score may be expected to be a better index of social stratification than the 3 component variables–family income, education, and occupation of the chief income recipient–since it assures greater homogeneity within and heterogeneity between groups. However, a strict inverse relation between SES and fertility is not supported by the data. Fertility among nonwhites was higher than among whites in each SES class except the highest. Perhaps if selection of women were confined to those with all 3 components of SES consistent, the combined score would yield a more homogeneous group and produce a strict inverse relationship with fertility. 4 tables. 9 references. (Ed)

495. MITRA, S.
Occupation and fertility in the United States.
Eugen Quart 13:141-6, Jun 66.

Among white women classified by age and major occupation of their husbands, the total number of children ever born was highest among farm laborers and foreman and lowest among clerical, sales, and kindred workers. The relative positions were nearly identical in 1950. In almost every occupation group, nonwhite women had more children than white women of the same age, except for the professional, technical, etc. and clerical, sales, and kindred workers groups. 4 tables. 3 references. (Ed)

496. PARROT, P.
Analytical study of decline of the birth rate in Canada.
Canad J Public Health 57:581-5, Dec 66. (FR)

No English summary.

942. PERRIN, E. B., SHEPS, M. C.
A mathematical model for human fertility patterns.
Arch Environ Health (Chicago) 10:694-8, May 65.

497. PINTO, R. M.
Demographic, economic and social factors that regulate fertility.
Prensa Med Argent 52:2591-6, 29 Oct 65. (SP)

Population tables of the South American countries, the continents of the world, and island countries are given with the number of births and mortality indexes. Birth control is being practiced to an extent in Argentina and although the manufacture of contraceptive medications or devices are prohibited by law on religious grounds, the medical profession secures some from foreign countries in order to try to control the birth rate and keep it closer to replacement figures. 8 tables. 11 references. (AEd)

498. POTTER, R. G., Jr., NEW, M. L., WYON, J. B.
A fertility differential in eleven Punjab villages.
Milbank Mem Fund Quart 43:185-201, Apr 65.

In a rural population of about 12,000 in the Punjab, India, a moderate fertility differential was found between Jat farmers (½ the population) and Chamar leather workers (¼ the population). Data came from the India-Harvard Ludhiana Population Study, also known as the Khanna Study. Among wives of childbearing age, Jats had lower fertility than the Chamars of all ages, partly because of the Jat's higher rates of fetal wastage and partly their early stoppage of pregnancy. The 2 groups reported essentially the same amount of practice of contraception. A practice of induced abortion is tentatively inferred from the Jat's consistently higher rates of fetal wastage. The basis of their earlier infertility remains uncertain. Several factors may be involved including contraception and the sterilizing effects of crude abortions. 8 tables. 15 references. (AEd)

944. RIDLEY, J. C., SHEPS, M. C., LINGNER, J. W.
The effects of changing mortality on natality. Some estimates from a stimulation model.
Milbank Mem Fund Quart 45:77-97, Jan 67.

499. ROACH, J. L., LEWIS, L. S., BEAUCAMP, M. A.
The effects of race and socioeconomic status on family planning.
J Health Soc Behav 8:40-5, Mar 67.

Relative strength of race and socioeconomic status as predictors of family planning behavior is examined. A group of 1,000 clients of the Planned Parenthood Center of Buffalo, New York, was examined to test the hypothesis that socioeconomic status is a better predictor of family planning than is race. The sample tested was 35% Negro, 63% white, and race was not determined for 2%. It was found that race, rather than socioeconomic status, accounted for most of the variance. Negroes are more likely than whites to have more chance pregnancies and to select, or have prescribed, a non-assiduous contraceptive method. The implications of the findings are discussed. 2 tables. 18 references. (AEd)

500. ROSENBERG, H. M.
Current birth trends in the United States.
Amer J Obstet Gynec 98:1005-12, 1 Aug 67.

Current trends in births and some general predictions about future trends based on known social and demographic factors associated with fertility. From 1910 to 1930, there was a change in family formation and in life styles and the birth rate started to decline and continued during the depression years. Then the birth rate increased until 1960. Various possible causes of these changes are discussed. 3 tables. 13 references. (Ed)

501. ROSENBERG, H. M.
Seasonal variation of births, U.S., 1933-63.
Vital and Health Statistics. Series 21, No. 9, May 66.

There was an average seasonal difference during the most recent 10-year period of about 15% between the peak month of September and the months with the fewest births, April and May. Seasonality does not appear to be

related to season of marriage, to age of mother, or to birth order of the child, but may be related to socioeconomic status and climate. U.S. birth patterns are compared with other countries and over time since 1933. 6 tables. (AEd)

502. RYDER, N. B., WESTOFF, C. F.
Use of oral contraception in the United States, 1965. In only 5 years oral contraception has become a major means of regulating fertility.
Science 153:1199-205, 9 Sep 66.

Report from the National Fertility Study, 1965, a survey of the reproductive behavior of a national sample of married women under age 55, living with their husbands. Basic data are given on use of oral contraceptives by women under age 45 in relation to age, parity, education, race, and religion. Use varies inversely with age of the woman and directly with number of years of schooling; the majority of young women with college training have already used the oral contraceptive. Use by Negroes is somewhat less extensive than by whites, particularly at ages below 25; some of the difference is explainable by concomitant racial differences in educational level. Other findings are discussed. 6 tables. 3 references. (Ed)

503. SAXENA, G. B.
Differential fertility in rural Hindu community: A sample survey of the rural Uttar Pradesh, India.
Eugen Quart 12:137-45, Sep 65.

Average number of children is quite high. The early rise and the failure of fertility to decline sharply account for the higher number of births. The data reveal an inverse relation between caste and fertility. This relation holds when caste differentials in fertility are analyzed by traditions, taboos, and social values. Occupation does not seem to affect the family-building pattern, possibly because it is less associated than is caste with the cultural patterns affecting fertility such as differential abstinence periods and different degrees of taboos on sexual behavior. 11 tables. (AEd)

504. SEIGEL, D. G.
Frequency of live births among survivors of Hiroshima and Nagasaki atomic bombings.
Radiat Res 28:278-88, Jun 66.

Data through 1961 were checked for live birth experience of approximately 24,000 persons in Nagasaki and Hiroshima. Comparisons were made among groups at various distances from the atomic bomb in 1945. Among those married before 1945, percent with no births 1945-1961 was the same in each distance group. This was also true for sub-groups with no births previous to 1945. Among those with first marriage, 1946-1950, percent with no births up to 1961 did not show any extraordinary variation by distance from the bomb. The ratio of live births to person-years of marriage during 1946-1961 was unrelated to distance. 6 tables. 5 references. (AEd)

946. SHEPS, M. C., PERRIN, E. B.
Further results from a human fertility model with a variety of pregnancy outcomes.
Hum Biol 38:180-83, Sep 66.

505. SRIVASTAVA, M. L.
The relationship between the birth rate and the death rate in stable populations with the same fertility but different mortality schedules.
Eugen Quart 13:231-9, Sep 66.

In 1963 it was noted that a decline in mortality was associated with a change in birth rate. This study examined decline in birth rate and related measures, because of the decline in a population. It disclosed an interesting and very useful empirical relationship between birth rate and death rate in stable populations that have the same fertility but different mortality schedules. From the variations in the age pattern of fertility and mortality in each of the populations considered, it may be inferred that the approximate estimate of gross reproduction rate obtained from a graph is very near to the true value of gross reproduction rate in the population. 2 tables. 2 figures. 9 references. (AEd)

506. STOKER, H. M.
Population explosion.
S Afr Med J 40:319-22, 16 Apr 66.

Present rate of population increase is undoubtedly due mainly to the falling death rate, particularly in countries where death rates were relatively high. There has been a very marked decline in deaths particularly at the early ages of life. Whereas in earlier years, only about ½ of newborns survived to adulthood, the figure now exceeds 90% in an ever-increasing segment of the world population. In more developed and industrialized areas such as Northern America, Europe, and Oceania, comprising approximately 20% of the world's population, growth rate is about 1% per annum. In less industrialized and less developed regions such as Africa, Latin America, and Asia, comprising 72% of the world's population, growth rate is about 2.4% per annum. The contrast in rates would be even more pronounced, if expressed on a country or degree of industrialization basis instead of on a regional basis. 1 table. (Ed)

507. STYCOS, J. M.
Female employment and fertility in Lima, Peru.
Milbank Mem Fund Quart 43:42-54, Jan 65.

Using 1959 Lima birth registration data, it was found that mean birth order by age of mother is virtually identical for housewives and service workers. A recent survey of currently married women in Lima shows no clear cut relation between fertility and employment status. In the upper classes, no differences in fertility rate by employment status were found. It seems likely that employment status is more often a consequence of marital fertility than a cause. It is also likely that legal marriage reduces female employment and at the same time increases fertility by stabilizing sexual relationships. The present analysis gives little comfort to Peruvians who are hoping for increased entry of females into the labor force as a solution to high birth rates. 1 reference. (AEd)

508. WHELPTON, P.K., CAMPBELL, A.A., PATTERSON, J.E.
Trends and determinants of family size in the United States.
Amer J Public Health 54:1834-40, Nov 64.

A discussion based primarily on two studies by the Scripps Foundation for Research in Population Problems, for the purpose of providing information useful in making projections of the future population of the U.S.

The gain from larger families will probably reach a maximum during the current period and either decrease slowly or remain near the current figure. In contrast, the gain from changes in age at childbearing was largest during 1955-1960, is somewhat smaller currently, and will decrease rapidly in the next decade. This shrinkage in the net number of births transferred to a given year by changes in age at childbearing is partly responsible for the decrease of the crude birth rate. It will continue to exert a depressing influence during the rest of the 1960's and the 1970's. Probabilities of couples having either fewer or more children than are wanted by one or the other spouse, or both, are discussed. 2 tables. References. (Ed)

B. BIRTH WEIGHT AND GESTATION

509. ANONYMOUS.
Growth-rate in utero.
Lancet 1:765-6, 8 Apr 67.

1/3 of babies formerly classified as premature (2,500g or less) are, in fact, born at full term and are undergrown. The prognostic implications of retarded intrauterine growth remain obscure. Many reports have described impaired development after intrauterine malnutrition. Van Den Berg and Yerushalmy reviewed 400,000 births in New York City. A significant difference in mortality between groups of infants of similar birth weight but different gestational age prompted them to examine in greater detail the association between rate of intrauterine growth and subsequent development. Infants of very short gestation had neonatal mortality rates nearly double that of other groups, largely due to respiratory disorders. Congenital malformations were more common among "small for dates" infants. Various investigations are cited. Accurate documentation and assessment of gestational age will be of prime importance in future research on the low birth weight baby. (AEd)

510. ABERNATHY, J. R., GREENBERG, B. G., GRIZZLE, J. E.
Birth weight, gestation, and crown-heel length as response variables in multivariate analysis.
Amer J Public Health 56:1281-6, Aug 66.

Several indexes of prematurity, based upon physical measurements of the infant and upon length of gestation period, have been developed and used over the years. In this paper the authors analyzed simultaneously the components of three such indices as response variables in multi-variate analysis. They conclude that the method is practicable and that factors which cause prematurity might better be identified and defined through study using the technics described. 1 table. 7 references. (ED)

511. ABERNATHY, J. R., GREENBERG, B. G., WELLS, H. B.
Smoking as an independent variable in a multiple regression analysis upon birth weight and gestation.
Amer J Public Health 56:626-33, Apr 66.

Regression techniques were used to analyze variation in birth weight and length of gestation in a group of Baltimore Negro women of like socioeconomic class. Variables significant in the regression analysis of birth weight but not gestation were smoking history, parity, hypertension, and eclampsia. A 129g difference in birth weight of offspring of smokers and non-smokers was shown. As gestation increased, birth weight increased but at a decreasing rate. Variables significant in the regression analysis of gestation but not birth weight were psychosomatic complaint score and trimester of interview. There was a significant difference in the mean gestation of infants of mothers with low and high psychosomatic complaint scores but not in their birth weight. The same can be said concerning infants born to mothers who sought prenatal care in the third as compared with the first trimester. 3 tables. 10 references. (AEd)

512. BACOLA, E., BEHRLE, F. C., DE SCHWEINITZ, L.
Perinatal and environmental factors in late neurogenic sequelae. I. Infants having birth weights under 1,500 grams.
Amer J Dis Child 112:359-68, Oct 66.

A study of 40 infants born at the University Kansas Medical Center since 1954 who weighed between 1,001 and 1,500g at birth and were available for followup examinations. Half the infants were considered either mentally retarded or borderline in intelligence. Over half had serious clinical respiratory difficulties in the neonatal period. All of the infants had respiratory distress syndrome (RDS) in its most severe form, late occurring apnea, or a mother with toxemia of pregnancy. In its most severe form, RDS accounted for the inverse relationship between birth weight and gestational age on one hand and the incidence of mental retardation on the other. Maternal toxemia of pregnancy was associated with gestational periods that were longer than usual and a tendency for infants to be "small for dates". 6 tables. 20 references. (AEd)

513. BACOLA, E., BEHRLE, F. C., DE SCHWEINITZ, L.
Perinatal and environmental factors in late neurogenic sequelae. II. Infants having birth weights from 1,500 to 2,500 grams.
Amer J Dis Child 112:369-74, Oct 66.

A study of 48 infants born at the University of Kansas Medical Center since 1954 who weighed between 1,500 and 2,500g at birth and were available for followup examinations. Neonatal respiratory difficulties, including the most severe form of the respiratory distress syndrome and later occurring apnea, were not associated with an increased incidence of subnormal mental development among these infants. Maternal toxemia of pregnancy was associated with a high incidence of offspring who were "small for dates" at birth. An increased incidence of subnormal mental development was not observed among these offspring. Socioeconomic conditions appeared to play a significant role in the mental development throughout the birth weight range of 1,500 to 2,500g. 5 tables. 13 references. (AEd)

514. BARKER, D. J.
Low intelligence. Its relation to length of gestation and rate of foetal growth.
Brit J Prev Soc Med 20:58-66, Apr 66.

An analysis of birth weights and gestation periods of 606 children with low intelligence of unknown cause from a population of 73,687 single births, for whom obstetric data had been recorded. Low intelligence is associated with both a slower rate of intrauterine growth and a higher incidence of birth before 38 weeks of gestation than found in the population. Below an approximate I.Q. level of 50, slow intrauterine growth may be closely related to the factors causing subnormality; above this level, it seems to be one of many characteristics of families in which genetic endowment and the environment are generally unfavorable for intellectual development. There is evidence that birth before 38 weeks of gestation

is a cause of low intelligence when it is accompanied by a very short labor or delivery in the absence of a qualified birth attendant. It seems unlikely that either high birth weight or prolonged gestation are associated with a marked increase in the threshold of subnormality. 15 tables. 27 references. (AEd)

515. BATTAGLIA, F. C., LUBCHENCO, L. O.
A practical classification of newborn infants by weight and gestational age.
J Pediat 71:159-63, Aug 67.

A classification of newborn infants based upon gestational age and birth weight is proposed. The advantages of establishing such a routine on a nursery service and the possibility of superimposing neonatal mortality rates upon gestational age and birth weight data are presented. 1 table. 2 figures. 6 references. (AA)

516. CASSADY, G.
Plasma volume studies in low birth weight infants.
Pediatrics 38:1020-7, Dec 66.

An average plasma volume of 46.8 ± 7.1 ml/kg and blood volume of 87.9 ± 13.6 ml/kg was found in 69 true premature infants studied during the first 12 hours of life. Respiratory distress syndrome in these infants was not associated with an altered plasma or blood volume. Intrauterine growth retardation, defined on the basis of disproportionately low birth weight in relation to gestational age, was associated with an elevated average plasma volume (52.0 ± 7.8 ml/kg) during the 4 hours after birth. Despite rapid adjustment of this volume to normal between 4 and 12 hours of age the average blood in this group of infants was significantly elevated (102.0 ± 18.7 ml/kg). These studies reveal direct objectives and measurable differences between growth retarded and true premature low birth weight infants and represent an attempt at more accurate definition and understanding of intrauterine growth retardation. 4 tables. 5 figures. 31 references. (AA)

517. CHURCHILL, J. A.
The relationship between intelligence and birth weight in twins.
Neurology (Minneap) 15:341-7, Apr 65.

Fifty sets of twins were compared for the relationship between birth weight and WISC (Wechsler Intelligence Scale for Children) IQ. The lighter members within sets were found to have lower IQ's. When identical twins (22 in number) were separated from fraternal twins (28 in number), the finding of lower IQ in the lighter members of sets was seen in the identical but not in the fraternal group. Furthermore, it was found that the performance section of the WISC IQ test bore a relationship to birth weight, but the verbal section did not. 6 tables. 27 references. (AA)

518. CHURCHILL, J. A., NEFF, J. W., CALDWELL D. F.
Birth weight and intelligence.
Obstet Gynec 28:425-9, Sep 66.

A group of 51 children with "undifferentiated" mental retardation was found to have significantly lower birth weight than a group of 51 children with IQs above 110, matched for sex, age, and area of residence. The relationship between IQ and birth weight was present when all cases with birth weight under 2,500g or with gestations under 38 weeks were deducted from the group. The IQ birth weight relationship was found to be independent of sociocultural factors in the middle class population studied. 3 tables. 16 references. (AA)

519. CORNBLATH, M., FORBES, A. E., PILDES, R. S.
A controlled study of early fluid administration on survival of low birth weight infants.
Pediatrics 38:547-54, Oct 66.

A study of infants born at Cook County Hospital, Chicago, to evaluate effects of early administration of fluids versus 24-72 hours starvation on survival at 14 days of 90 premature infants with birth weights under 1,500g. Mortality was 30% in the 30 infants who were given intravenous fluids as compared to 50% in those who were given nasogastric fluids or those who were starved. A reduction in mortality was noted in the group of infants between 765 and 1,250g, who received parenteral fluids early (mean, 6 hours; range, 2-15 hours). Since limitations to those lower weight groups had not been included in the protocol, a further study is indicated. There was no significant difference in the 72-hour weight loss, the biochemical determinations, the morbidity, or the autopsy findings of the 3 groups studied. 7 tables. 34 references. (AEd)

520. DRAGE, J. S., BERENDES, H.
Apgar scores and outcome of the newborn.
Pediat Clin N Amer 13:637-43, Aug 66.

A strong association is shown of both 1- and 5-minute scores with birth weight (low birth weight associated with low scores). There is also a strong association between low scores and neonatal mortality, occurring during the first 2 days of life. Within birth weight groups, the mortality between high and low scoring infants at 5 minutes differs substantially. Data show that 5-minute scores are strongly associated with infant morbidity, and this association remains when birth weight is controlled. The value of Apgar scoring at specified intervals of time after delivery by trained impartial observers has been discussed with the hope that better observation of the newborn infant will result. 8 figures. 1 table. 9 references. (AEd)

521. DRAGE, J. S., KENNEDY, C., BERENDES, H.
The Apgar score as an index of infant morbidity. A report from the collaborative study of cerebral palsy.
Develop Med Child Neurol 8:141-8, Apr 66.

Both the 1-minute and 5-minute Apgar scores have value in predicting infant morbidity and the 5-minute score is the better predictor. Morbidity is defined in terms of diagnostic impression regarding neurological abnormality at one year of age, and by more specific findings regarding motor relaxation, muscle tone, and prehensile grasp. Low birth weight is also related to abnormal neurological outcome at age of one year. Within combinations of birth weight and 5-minute score groups, abnormal outcome is associated most strongly with the combination of low birth weight and low 5-minute score. The percentage of abnormality within each birth weight group is greater among infants with scores of 0-3 than among infants in the same birth weight group with scores of 7-10. While both birth weight and Apgar scores at 1 and 5 minutes have predictability value regarding neurological abnormality at one year, this predictability value increases considerably when birth weight 5-minute scores are combined. 5 tables. Chart. 8 references. (AEd)

522. DRILLIEN, C. M.
The incidence of mental and physical handicaps in school age children of very low birth weight. II.
Pediatrics 39:238-47, Feb 67.

Data refer to 50 children in Scotland 5 years or older whose birth weight was 1,360g or less. IQ scores and incidence of mental and physical handicaps are given. Factors examined for their effect on incidence and survival of low birth weight infants are: multiple births, sex of infant, age of mother, socioeconomic class, and complications of pregnancy. Comparisons are made with the general population of Edinburgh. Incidence of handicaps and survival rates of low birth weight infants are compared since 1948. 10 tables. 13 references. (Ed)

662. ERHARDT, C. L., JOSHI, G. B., NELSON, F. G.
Influence of weight and gestation on perinatal and neonatal mortality by ethnic group.
Amer J Public Health 54:1841-55, Nov 64.

523. GENTZ, J., STERKY, G.
Proposed new classification of newborn infants.
Lakartidningen 63:4989-93, 28 Dec 66. (SW)

A new classification of newborn infants is proposed, based on standard curves between normal weight and length at birth in relation to gestational period. To qualify as "normal" the infant must fall within the mean ± 2 standard deviations for a given gestational age. The gestation period is "normal" when it falls between 2 SDs for the calculated duration of gestation corresponding to the mean birth weight in the basal material (standard curves). A "pathologic" length of gestation is more than 282 ± 21 days, while "pathologic" weight and length vary. Examples are given for each early and late symptomatology and prognosis for various groups of newborn infants at risk. Further data and a uniform classification are needed. The parameters presented are objective and capable of direct measurement and all newborn infants may be described in relation to them. Terms such as immature, premature, dysmature, small for dates, etc. are lacking in precise definition, and make comparison between different material impossible. 2 photographs (of authors). 1 figure. 20 references. (AEd)

524. GHOSH, S., DAGA, S.
Comparison of gestational age and weight as standards of prematurity.
J Pediat 71:173-5, Aug 67.

A study based on period of gestation and birth weight of 2,273 single-born live infants. Prospects for the baby improved with increase in weight and length of gestation. Infants with longer gestational periods within the same weight group had lower mortality rates as a group than did those with relatively shorter gestational periods. Within same weight groups, physiological responses were more mature in babies with longer gestational periods. It is suggested that weight alone is not an adequate criterion for assessing prematurity, and that weight and gestation period together are better indices. 3 tables. 9 references. (AEd)

525. GRAVEN, S. N., OPITZ, J. M., HARRISON, M.
The respiratory distress syndrome. Risk related to maternal factors.
Amer J Obstet Gynec 96:969-76, 1 Dec 66.

Incidence of respiratory distress syndrome (RDS) of premature infants born to mothers delivering successive low birth weight (LBW) infants is presented. A healthy LBW infant followed a healthy LBW infant 29/134 times and a LBW infant with RDS followed a LBW infant with RDS 9/12 times. Incidence of RDS among LBW infants born to female relatives and high and low risk mothers and the general population was determined. On the basis of the data, it is proposed that there exists a genetically determined RDS predisposition factor, disproportionately affecting low birth weight infants. (Ed)

526. GRISWOLD, D. M., CAVANAGH, D.
Prematurity—the epidemiologic profile of the "high risk" mother.
Amer J Obstet Gynec 96:878-82, 15 Nov 66.

At Jackson Memorial Hospital, Miami, Florida, prematurity rate is consistently about twice as high among indigent as among private patients. An epidemiologic analysis of the indigent group further revealed the patient most likely to have a premature baby. Careful scrutiny of "high risk" patients, and comparisons with "low risk" patients in the same socioeconomic group would shed further light on the etiology of premature labor. 5 tables. 3 graphs. 16 references. (AEd)

527. GRUENWALD, P.
Infants of low birth weight among 5,000 deliveries.
Pediatrics 34:157-62, Aug 64.

Among 5,000 consecutive deliveries, there were 536 infants of low birth weight (401-2,500g). Those weighing more than 1,000g are analyzed according to stated gestational age and normal standards of birth weight for gestational age. The incidence of chronologically mature infants and of those retarded in intrauterine growth was determined for infants weighing 1,001-2,000g, 1,001-2,250g, and 1,001-2,500g. Perinatal mortality figures for the various types of infants of low birth weight are given. 5 tables. 2 figures. References. (AA)

528. GRUENWALD, P.
Terminology of infants of low birth weight.
Develop Med Child Neurol 7:578-80, Oct 65.

Infants weighing 2,500g or less at birth are not all premature in the sense of being born too early, but may be small because they did not grow normally *in utero*. The World Health Organization has suggested that infants weighing 2,500g or less be called "infants of low birth weight" rather than "prematures." Grids of normal growth of "premature" infants (old terminology) are based on values intermediate between those of true prematures and growth-retarded neonates, being derived from populations containing a mixture of the two types. Neurological characteristics of neonates are governed by conceptional age rather than birth weight. Several terms are suggested for infants of low birth weight, such as: short-term neonates (prematurity or immaturity proper); growth-retarded neonates (small-for-dates, fetal malnutrition, pseudoprematurity, dysmaturity, chronic fetal distress); combinations of these two; and neonates who cannot be adequately classified because of incomplete information. 25 references. (Ed)

529. GRUENWALD, P., FUNAKAWA, H., MITANI, S.
Influence of environmental factors on fetal growth in man.
Lancet 1:1026-8, 13 May 67.

Is the increase in average birth weight after improvement of economic and health conditions due to increasing

length of gestation or better fetal growth? Hospital records of 3 large Japanese obstetric services were used to obtain information on birth weight in relation to gestational age during a 20-year period in which not only recovery from wartime deprivation took place, but also increase in mean birth weight over pre-war levels. Duration of pregnancy was not increased, but fetal growth curves showed a striking increase of weight for gestational age during the latter part of the third trimester of pregnancy. This attests to the prominent influence of socioeconomic factors on fetal growth. The curves are consistent with the hypothesis that differences in average birth weight of population groups are due to variations in the time at which growth begins to fall below optimal levels during the last part of the third trimester. Data show an increase in body height as well as in weight. 2 tables. 2 figures. 11 references. (AEd)

530. HENDERSON, M., KAY, J.
Differences in duration of pregnancy. Negro and white women of low socioeconomic class.
Arch Environ Health (Chicago) 14:904-11, Jun 67.

A study of pregnancies in white and Negro women in Baltimore. Before a biological difference between pregnancy length in Negro and white patients can be accepted, it must be shown that: (1) the observed difference is not caused by curtailment of either distribution, (2) some demographic or socioeconomic characteristic associated with the length of pregnancy has not been missed in the analysis, and (3) other observations support a biological hypothesis. Negro women were found to have shorter pregnancies than white women. This difference is consistent however comparisons are made. A review of the literature does not suggest that any maternal characteristic other than those examined is associated with birth weight. 11 tables. 20 references. (Ed)

780. HENDRICKS, C. H.
Twinning in relation to birth weight, mortality, and congenital anomalies.
Obstet Gynec 27:47-53, Jan 66.

782. HOLLINGSWORTH, M. J., DUNCAN, C.
The birth weight and survival of Ghanaian twins.
Ann Hum Genet 30:13-24, Jul 66.

531. JANSSON, I.
Aetiological factors in prematurity.
Acta Obstet Gynec Scand 45:279-300, 66.

Retrospective personal interviews of 223 mothers of 240 premature infants and 223 mothers of mature infants born during the same period (March 1, 1962-February 28, 1964). The etiology of prematurity is discussed, based on differences found and a review of the recent literature. In 45% of the premature births, an obvious cause, such as toxemia, multiple pregnancy, placental complication, or fetal malformation could be established. In the remaining 55%, general factors connected with prematurity, such as maternal age, marital status, gravidity, socioeconomic condition, and constitution are believed to be of more importance. The significance of urinary infection and smoking during pregnancy is discussed. Some groups of pregnant women with increased risk of premature birth are defined, and measures intended to decrease the rate of prematurity and prenatal mortality are outlined. 9 tables. 22 references. (AEd)

532. JAYANT, K.
Birth weight and survival: A hospital survey repeated after 15 years.
Ann Hum Genet 29:367-75, May 66.

A survey of infants born in University College Hospital, London, during 1950-53, 1957 and 1960 with special reference to birth weight and survival. Results are compared with survey of infants born during 1935-46 in the same hospital. A significant lowering of mortality rates was found. There was an increase in the mean birth weight of survivors and all births, in contrast to a decrease in mean birth weight in the non-survivors. Other factors, such as parity, maternal age, and critical and optimal weights in different populations are discussed. 10 tables. 4 figures. 11 references. (AEd)

533. JAYANT, K.
Effect of parity on optimal and critical birth weights.
Ann Hum Genet 29:363-5, May 66.

Mean birth weight of survivors generally increases with parity, the primiparas having the lowest mean birth weight. Some workers have found the trend to be almost linear and others that the rise continues only up to a point and that then there is a decline. It can be said that the critical birth weight rises in association with the mean birth weight of survivors; so also does the optimal birth weight but it increases more markedly for multiparity above one. Optimal and critical birth weights are calculated for parities 0, 1, 2, for males and females separately, using data from births, 1935-1946. The critical birth weights do not significantly vary with parity but the optimal birth weight does increase significantly. 1 table. 1 figure. 7 references. (AEd)

534. KATZ, C. M., TAYLOR, P. M.
The incidence of low birthweight in children with severe mental retardation.
Amer J Dis Child 114:80-7, Jul 67.

Records of 573 children institutionalized for severe mental retardation were reviewed. IQ scores were below 51 for 273 (84%) of the 325 patients who had been tested. Cause of retardation was not known for 63% (undifferentiated group). Incidence of birth weight of 2,495g (5.5 lbs) or less was significantly higher for the total retarded population (25%) and the undifferentiated group (25%) than for the general population of Pennsylvania born in 1955 (7%). The incidence of birth weight of 1,588g (3.5 lbs) or less was 6% for the total retarded population and 8% for the undifferentiated group as compared to 1% for the general Pennsylvania population. It was shown that the very high incidences of low birth weight and very low birth weight for the retardates could not be due solely to economic factors. 8 tables. 15 references. (AA)

535. KERNEK, C., OSTERUD, H., ANDERSON, B.
Patterns of prematurity in Oregon.
Northwest Med 65:639-42, Aug 66.

Premature births and infant deaths in Oregon increase as family incomes decrease. The farmer is the only exception. The laborer, farm laborer, and unemployed mothers had three times as many premature births and infant deaths compared with the higher socioeconomic groups. The infant death rate was much higher in the premature births; therefore, a decrease in premature births would result in a reduction of the infant death rate. 4 figures. 4 tables. 12 references. (AA)

536. LOEB, J.
Weight at birth and survival of newborn, by age of mother and total-birth order, U.S., early 1950.
Vital and Health Statistics. Series 21, No. 5, Jul 65.

Data are from vital records on birth weight of children born in the U.S. during the first 3 months of 1950 and neonatal deaths among this group. Incidence of immaturity was lowest for second-order births and for mothers aged 25-29. Median weight, however, increased directly with both birth order and age of mother due, in part, to changes in the proportion of heavy infants. Neonatality rates tended to follow the pattern for immaturity rates, but were markedly high for infants weighing 2,501g or more born to older mothers. 12 tables. (Ed)

537. MOORE, B. C.
Relationship between prematurity and intelligence in mental retardates.
Amer J Ment Defic 70:448-53, Nov 65.

Results of a study of 137 premature retardates in Arizona Children's Colony tend to support evidence that prematurity and mental deficiency are not only related but that the degree of severity of one may reflect that of the other. 2 tables. 3 references. (Ed)

538. NORTH, A. F., Jr.
Small-for-dates neonates. I. Maternal, gestational, and neonatal characteristics.
Pediatrics 38:1013-9, Dec 66.

Records were compared for 3 groups of infants: (1) small-for-date neonates (birth weight under 2,500g, 37-44 weeks gestation), (2) pre-term infants (under 2,500g, 28-32 weeks), and (3) "average" infants (3,000-3,500g, 37-44 weeks). The small-for-date neonates differed markedly from the pre-term infants in 15 of the 35 variables examined and from the "average" infants in 31 of the 35 variables examined. In the newborn period, small-for-date infants as compared with weight matched pre-term controls, had: (1) higher incidence of maternal toxemia and hypertension and of primiparous mothers, and (2) lower incidence of gestational bleeding, low birth weight siblings, neonatal complications and deaths, and hemolytic and pulmonary disease. Gestational age, though subject to error in measurement, is as important a predictor of neonatal clinical status as is birth weight. Future studies of antecedent conditions, neonatal course, and long-term outcome of low birth weight infants must consider birth weight and gestational age. 3 tables. 2 figures. 16 references. (AEd)

539. O'SULLIVAN, J. B., GELLIS, S. S., TENNY, B. O.
Aspects of birth weight and its influencing variables.
Amer J Obstet Gynec 92:1023-9, 1 Aug 65.

Data from 5,883 prenatal patients were examined for variables influencing birth weight. Initial results indicated that maternal age, parity, weight, history of having borne a baby weighing 9 pounds or more, length of gestation, and sex of infant were all of possible significance. Further analyses removing overlapping effects of intercorrelated factors were made. The significant effect of having previously borne a large baby ... in no way negates possible genetic explanations. Length of gestation has the greatest single effect on infant birth weight. Its use as an index of maturity is discussed in relation to difficulties in applying results from group data to an individual. 4 tables. 1 figure. 17 references. (AEd)

540. RAMIREZ CUETO, G., SEPTIEN, J. M., ESPINOSA GARCIA, J.
Delivery of fetuses of 4000 grams or more.
Ginec Obstet Mex 20:931-6, Sep-Oct 65. (SP)

Among 13,488 deliveries in Mexico, D. F., the incidence of babies weighing 4,000g or more at birth was 2.11%, a figure less than that for other groups studied. The incidence of Caesarean sections was high. Statistics of various circumstances of the deliveries are given. It is concluded that the obstetrical future of the large fetus is not unfavorable if an early diagnosis is made and the cases are studied individually for their solutions. 10 references. (AA)

541. REINKE, W. A., HENDERSON, M.
Smoking and prematurity in the presence of other variables.
Arch Environ Health 12:600-6, May 66.

An analysis of data on 3,156 Negro women who delivered single, live infants has confirmed an association between infant sex, maternal smoking habits, and birth weight and has revealed other factors of importance. Maternal prenatal weight in relation to height is clearly associated with infant birth weight and the probability of prematurity. Parity is also related, but to a lesser extent. These factors fall far short of explaining prematurity, since they yield a multiple correlation coefficient of approximately 0.2. Smoking apparently influences the prematurity rate. Multiparous women of normal weight have a low risk of prematurity unless they smoke. The results show a need for studies of the cumulative effects of smoking as women grow older and increase in weight and parity. The limited number of observations in the present study along with the strong correlations among the above factors prevent firm conclusions in this area. 8 tables. 2 figures. 15 references. (AEd)

800. RUSSELL, C. S., TAYLOR, R., MADDISON, R. N.
Some effects of smoking in pregnancy.
J Obstet Gynaec Brit Comm 73:742-6, Oct 66.

542. SANTINI, A.
Weight increase of the premature infant in the first year of life.
Lattante 36:450-5, May 65. (IT)

A study in Cremona, Italy, of 100 newborn premature infants, divided into three classes according to weight (1,000-1,500g, 1,500-2,000g, 2,000-2,500g). Median monthly increase in weight was compared with that of newborn infants of normal birth weight. The author concludes that though with a delay compared to a mature infant, the premature infant comes to have toward the end of the first year a total increase in weight almost as great and sometimes greater, so that he actually succeeds in reaching the weight of the mature infant. 2 tables. (AEd)

543. SARRAM, M., SAADATNEJADI, M.
Birth weight in Shiraz (Iran) in relation to maternal socioeconomic status.
Obstet Gynec 30:367-70, Sep 67.

Average birth weight of babies born in the Shiraz area compared with U.S. data. Average birth weight of Iranian babies among indigent mothers is significantly less than among private patients. It is also significantly less for all babies born in the Shiraz area than for American

white newborns. The difference between average birth weight of Iranian newborns among private patients and American nonwhite newborns is not statistically significant. The suggestion is made to establish lower limits of birth weight separating mature and premature infants among babies born in Iran. 6 tables. 14 references. (AEd)

544. SHAPIRO, S., UNGER, J.
Weight at birth and its effect on survival of the newborn, U.S., early 1950.
Vital and Health Statistics. Series 21, No. 3, Jul 65.

Statistics on maturity at birth derived from vital records for babies born in the U.S. during the first 3 months of 1950 and neonatal deaths among this group. 7% of all infants weighed 2,500g or less and neonatal mortality was 173.7 per 1,000 compared with 7.8 for other birth weight groups. For a given gestation, heavier babies fared better than lighter ones, and for a given weight, gestations at or near term had the lowest mortality. A greater proportion of nonwhite babies were born at the extremes of birth weight where mortality risk is greatest. Mortality for hospital births was usually much lower than for deliveries by nonmedical persons, for both white and nonwhite infants. 6 tables. (AEd)

545. SIEGEL, M., FUERST, H. T.
Low birth weight and maternal virus diseases. A prospective study of rubella, measles, mumps, chickenpox, and hepatitis.
JAMA 197:680-4, 29 Aug 66.

A prospective study on maternal virus diseases occurring, 1957-1964, disclosed an increase in frequency of prematurity following hepatitis, measles, and rubella. The occurrence of low birth weight was largely related to retarded intrauterine growth following rubella and to premature onset of labor in hepatitis and measles. Data for mumps and chickenpox in mothers revealed no association with prematurity. There appeared to be no significance in the virulence of rubella virus prevalent in epidemic and nonepidemic years as determined by the frequency of low birth weight. These results agree with those previously reported for fetal deaths in the same affected population. In a study of maternal virus diseases, an interrelationship was found between prematurity and other fetal effects of maternal infection, such as fetal death and congenital defects. 7 tables. 30 references. (AEd)

546. SPENCER, R. P., COULOMBE, M. J.
Observations on fetal weight and gestational age.
Growth 28:243-7, Sep 64.

A previously derived equation, relating fetal weight to gestational age, contains two terms which might differ between populations. Holding one term invariant, an approximate linear relationship is shown to exist between the second term and the percentile into which the fetal weight falls. Although but an initial approach, the technique suggests methods whereby fetal weight from different populations might be compared. 2 diagrams. References. (AA)

547. SRSEN, S.
Intraventricular hemorrhage in the newborn and 'low birth-weight'.
Develop Med Child Neurol 9:474-80, Aug 67.

This paper is based on 10 years' research in the neonatal department of the Obstetrics Clinic at Kosic. In newborn infants, born alive but dying before the 10th day, intraventricular hemorrhage has been observed in 13% of autopsies, and these infants comprise 42% of the total cases of intracranial hemorrhage. The incidence of intraventricular hemorrhage is significantly higher in newborn infants of low birth weight than in those weighing 2,501g or more. With decreasing birth weight, the proportion of intraventricular hemorrhage to the total cases of intracranial hemorrhage gradually rises. In infants with the lowest birth weight intraventricular hemorrhage occurs more frequently in isolation than in combination with extraventricular hemorrhage. After evaluating the influence of fetal age, birth weight, and body length, it is emphasized that true prematurity (low gestational age) is mainly responsible for this type of intracranial hemorrhage. 4 tables. 4 figures. 14 references. (AEd)

548. UNGER, J.
Weight at birth and survival of the newborn, by geographic divisions and urban and rural areas, U.S., early 1950.
Vital and Health Statistics. Series 21, No. 4, Jul 65.

Data from vital records on birth weight of children born in the U.S. during the first 3 months of 1950 and neonatal deaths among this group for each division and for urban and rural areas and metropolitan and nonmetropolitan counties. The percent with birth weight 2,500g or less or 4,501g or more varied by geographic division. Comparisons are made by color of the infant. Birth weight in rural areas was somewhat heavier than in urban areas. In urban areas, there was a higher incidence of immaturity, whereas births at very heavy weights occurred more frequently in rural areas. The contrast was much sharper for nonwhite than white. There is evidence that variations in completeness and in accuracy of reporting may affect comparability of area data. 16 tables. (AEd)

549. VALAES, T.
Intrauterine growth and mortality.
J. Pediat 71:150-1, Jul 67.

"Letter to the editor" takes issue with an article by Drs. B. J. Van Den Berg and J. Yerushalmy on intrauterine growth and low birth weight infants and the relationship to mortality and congenital anomalies, indicating that not enough information was provided and analysis was not in enough detail on the child health and development studies in Oakland, Denver, and New York City. Drs. Van Den Berg and Yerushalmy, in a "reply to the editor," state that the purpose was to investigate interaction of birth weight and gestational age as related to mortality, morbidity, and congenital anomalies. Although several samples were used, they plan to review, in a later paper in more detail, the different classification systems of birth weight and gestational age and subsequent health and diseases of children. 4 references. (Ed)

550. VAN DEN BERG, B. J., YERUSHALMY, J.
The relationship of the rate of intrauterine growth of infants of low birth weight to mortality, morbidity, and congenital anomalies.
J Pediat 69:531-45, Oct 66.

Infants with rapid intrauterine growth rates (IUG) compared with other low birth weight infants had: (1) almost twice the neonatal mortality, (2) higher mortality through age 2, (3) higher incidence of severe con-

genital anomalies, (4) longer need of incubator care, (5) longer stay in hospital after birth. After the neonatal period, infants with rapid IUG rates had fewer illnesses in the first year of life and overtook the low birth weight infants of very slow IUG rate in weight and height. Infants in the 4 gestation quartiles were nearly identical not only in birth weight but also in mean crown-to-head length and mean head circumference at birth. In addition to birth weight, IUG rate as determined by both birth weight and gestation is an important and useful index. 9 tables. 3 figures. 28 references. (AEd)

551. WEINBRENNER, L., ROBACZYNSKA, G.
Observations on the influence of occupation on the weight of newborn infants.
Med Pracy 16:242-5, 65. (POL)

Data on birth weight of infants from 2 groups: (1) women working in a clothing industry, and (2) women not working. Primiparas predominated among workers, multiparas among nonworkers. There were no important differences in birth weights of the infants born to the two groups of women. Careful medical attention of pregnant women provided by that particular clothing factory may explain the lack of difference. 2 tables. 1 figure. 11 references. (Ed)

552. YERUSHALMY, J.
The classification of newborn infants by birth weight and gestational age.
J Pediat 71:164-72, Aug 67.

Recognition that low birth weight infants do not represent a homogeneous group revived interest in gestational age as an important adjunct to birth weight in the classification of newborn infants. This paper discusses problems generated by the joint classification of births by means of birth weight and gestational age. An attempt is made to formulate objectives and purposes of such a classification. Certain classification systems in use, such as the percentile curves of Lubchence and the "minus two score" of Gruenwald, are discussed. A scheme for classifying births in five groups is suggested. 3 tables. 3 figures. (AA)

C. MATERNAL MORTALITY

553. ANONYMOUS.
Further reduction in maternal mortality.
Statist Bull Metrop Life Insur Co 46:6-8, Jun 65.

There has been a downward trend in mortality associated with pregnancy and childbirth. In the U.S., 1962-63, the maternal death rate was about one in 2,815 births. Maternal mortality is still about 4 times as high among nonwhite as among white women throughout the childbearing ages. Childbearing has become safest for women in their late teens. Geographical differences are discussed. Recent studies indicate that an appreciable proportion of maternal deaths are avoidable. 3 tables. 2 references. (Ed)

637. ANONYMOUS.
General information on maternal and infant mortality.
Bull Inst Nat Sante 21:919-28, Sep-Oct 66. (FR)

554. ANONYMOUS.
Maternal deaths.
Brit Med J 2:319-20, 6 Aug 66.

During 1961-1963, there were 2,550,252 births; 816 maternal deaths were directly due to pregnancy. Four main causes in order of frequency were abortion (139), pulmonary embolism (129), toxemia (104), and hemorrhage. 55% of the abortions were illegally procured. "Avoidable" factors were found in ½ the deaths from toxemia because of poor prenatal care, laxness of physicians, or poor home conditions of patient. Altogether avoidable factors were present in 262 of the 692 deaths analyzed. (Ed)

555. ANONYMOUS.
Maternal mortality report for Ohio. A 10-year survey, 1955-1964.
Ohio Med J 63:323-32, Mar 67.

A survey of maternal deaths in Ohio, 1955-64, is presented by the Committee on Maternal Health. The maternal death rate decreased from 4.3 (1955) to 2.8 (1964) per 10,000 live births. Analysis of 779 of 1,080 deaths revealed that hemorrhage (206), infection (157), and toxemia (86) accounted for 58% of maternal deaths. The autopsy rate was 73%, and 90% of the patients died in hospitals. 65% of the deaths were voted preventable by the committee after careful study of each case. 18 references. (Ed)

556. CARPENTER, C. W., BRYANS, F. E.
Maternal mortality in British Columbia: A study of 145 deaths from 1955 to 1962.
Canad Med Ass J 92:160-70, 23 Jan 65.

A study of 145 maternal deaths (0.422) in the Province of British Columbia, 1955-1962. Direct obstetrical deaths occurred in 100 cases. Hemorrhage was the most common (40), followed by vascular accidents (23), infections (17), toxemia (10), anesthesia (5), and other causes (5). Significant avoidable factors were noted in 80% of these direct obstetrical deaths. Indirect obstetrical deaths occurred in 29 cases; 65% were felt to have avoidable factors. 72% of all maternal deaths were felt to have significant avoidable factors. 40% to 50% of deaths were intimately involved with social factors. 7 tables. 5 figures. References. (AEd)

557. FOX, L. P.
Abortion deaths in California.
Amer J Obstet Gynec 98:645-53, 1 Jul 67.

223 abortion deaths, representing 21% of all maternal deaths were studied by the Maternal Mortality Committee of California. Socioeconomic and medical data indicate that the majority of these abortions were self-induced by crude methods which were quickly lethal with ¾ of the women dying either before arriving at medical facilities or within 2 days thereafter. The white, low-income, gravida iv-vi housewife in the age group of 25-29 years and experiencing her first abortion was the usual victim. Most fatalities occurred in the highest populated areas. Expeditious treatment directed toward control of irreversible shock from sepsis and other destructive entities was to little avail. Avoidable factors were in the majority assigned to the patient or her abortionist with a few professional errors related to overzealous effort. 1 table. 6 references. (AA)

558. GREEN, G. H.
Maori maternal mortality in New Zealand.
New Zeal Med J 66:295-9, May 67.

Investigation of causes of racial distribution (Maori and non-Maori) of 795 "true" maternal deaths in New Zealand, 1946-1965. Maori maternal death rate (1.5 per 1,000 live births, 1946-65) was twice that of non-Maoris. The death rate from obstetric hemorrhage, complications of labor, and "associated" disease was significantly higher in Maoris than non-Maoris, while that from toxemia of pregnancy and septic abortion was significantly lower. The standard of ante-and intra-natal care for Maoris must be improved and some suggestions as to how this can be effected are made. 4 tables. 1 figure. 6 references. (AEd)

559. JANSSENS, J.
Maternal mortality and the level of obstetric care. Fundamentals for improvement, particularly in the Netherlands.
T Soc Geneesk 43:657-62, 667, 10 Sep 65.

Present type of registration of maternal mortality in the Netherlands is inadequate. Maternal deaths from specific causes in the Netherlands and in Scandinavia, 1950-52 and 1960, are presented. In both areas, the proportion of deaths due to hemorrhage has increased. Is the predominance of home confinement over hospital confinement justifiable? The importance of midwives is explained, and the absence of an increase in frequency of maternal death by abortion is noted. To improve obstetrical care and to reduce risk of death in pregnancy and childbirth requires provision of better research facilities, training, and improvements in obstetric organization. Specific recommendations are made. 4 tables. 15 references. (Ed)

560. KORNILOVA, A. I.
Socio-hygienic problems of maternal mortality in the capitalist countries.
Sante Publique (Bucur) 8:323-34, 1965. (FR)

An analysis of causes of maternal deaths in many of the capitalist countries, giving number of deaths in 1960-62 for some of them, and 1956-58 and 1960 statistics of causes of maternal deaths in Sweden, U.S., Japan, and West Germany. 2 tables. 36 references. (AA)

561. STEVENSON, L. B.
Maternal death and abortion, Michigan 1955-1964.
Mich Med 66:287-91, Mar 67.

Abortion is responsible for an increasing number of maternal deaths in Michigan since 1960. Data are given for maternal mortality due to abortions by gestation duration, parity, race, and associated causes. 9 tables. 1 reference. (Ed)

D. CONGENITAL ABNORMALITIES

562. ANONYMOUS.
The notification of congenital abnormalities to the general register office.
Monthly Bull Minist Health (London) 23:204-6, Nov. 64.

Statistics for the first 3 months of 1964, as reported under the new scheme for notifying the General Register Office of incidence of congenital abnormalities observable at birth in England and Wales. Findings were in general agreement with those of survey made in Birmingham, 1950-52. Incidence of specific malformations is given. The following occurred most often in the first quarter 1964: talipes (4.2%), cleft lip (2.2%), spina bifida (2.0%), anencephalus (1.53%), and hydrocephalus (1.47%). 2 tables. References. (Ed)

563. ABOU-DAOUD, K. T.
Congenital malformations observed in 12,146 births at the American University Hospital in Beirut.
J Med Liban 19:113-21, May-Jun 66.

Information on 139 congenitally malformed infants and their mothers observed in the American University Hospital, 1955-1964, compared with a 5% sample of total births. There was no difference between the two groups with respect to age of mother or hospital class. A higher parity was observed in the malformed group. Malformations were observed more frequently in males than in females. Anencephalus, in contrast to other reports, was observed in both sexes equally. In this series, malformations occurred more frequently in Moslem than in Christian infants. 6 tables. 7 references. (AEd)

564. ALBERMAN, E. D.
The causes of congenital club foot.
Arch Dis Child 40:548-54, Oct 65.

Among babies born in Queen Charlotte's Maternity Hospital, 1958-1961, there were 170 with foot deformities, an incidence of 14.1 per 1,000 total births. Associated neurological malformations were often found in babies with talipes equinovarus, and a family history of central nervous system malformations was unduly common. No such associations were found in babies with talipes calcaneovalgus, but there were indications that the condition was related in some way to congenital dislocation of the hips. The apparent susceptibility of males to talipes equinovarus and females to talipes calcaneovalgus is discussed in the light of their reported association with anomalies of chromosome constitution. 7 tables. 28 references. (AEd)

565. ALTEMUS, L. A.
The incidence of cleft lip and palate among North American Negroes.
Cleft Palate J 3:357-61, Oct 66.

Study of incidence of cleft lip and/or palate among Negro children born at two hospitals in the District of Columbia over 10 years. One hospital, D.C. General, had a high incidence of births to mothers of the lowest socioeconomic group, and the other, Freemen's Hospital, had mothers of somewhat higher socioeconomic class. More clefts of every type were found in D.C. General. Birth records at D.C. General were further surveyed for the incidence of clefts over 14 years. 60 cases were found. Incidence was related to sex, type of cleft, birth weight, birth order, and age of mother. There was not sufficient information to correlate age of father. Birth order of the infant was 1, 2, or 3 most often. Those whose birth weights were 5½ lbs. or less had fewer clefts. Males in every category had more clefts. 6 tables. 11 references. (AEd)

566. BABSON, S. G., OSTERUD, H. T. THOMPSON, H.
The congenitally malformed. IX. Congenital malformation and the low birth weight infant.
Northwest Med 65:729-32, Sep 66.

A 6-fold increase in incidence of mortality among infants with birth defects occurs in small premature, undersized mature, and large premature infants over that found in normal sized mature infants. Thus, growth disturbances, relative under or over nutrition in utero, as well as prematurity are associated with a high risk of congenital malformation. Attention to warning signs will aid the physician in early identification of potentially lethal but possibly correctable defects in the newborn. 2 tables. 1 chart. 4 references. (AA)

567. BAILAR, J. C., 3D, GURIAN, J.
Congenital malformations and season of birth: A brief review.
Eugen Quart 12:146-53, Sep 65.

Many teratogenic factors, especially infectious diseases, have a seasonal pattern. Correlations are made between date of birth and the occurrence of congenital malformation. The data on cleft palate and harelip show no regular patterns. Findings of seasonal variations are cited and possible explanations are suggested. Seasonal cycles in births of infants with certain congenital malformations have been demonstrated beyond any reasonable doubt. However, many important questions remain unanswered. 3 tables. 29 references. (AEd)

568. BARON, J., KUCZYNSKI, J., PYDZIK, T.
Analysis of developmental malformations of fetuses and newborn infants with particular reference to maternal age.
Ginek Pol 37:1085-94, Oct 66. (POL)

Analysis of fetal congenital malformations detected during 6½ years of observation in 31,857 deliveries. 586 malformations were detected immediately after birth or to the 10th day of life, the most frequent being neuroectodermal (anencephaly, schistorachis, and meningocele), defects of heart and vessels and of the urogenital and musculoskeletal systems, cleft lips/palates; 46% were among females, 54% among males; 47% among primiparous mothers, 53% among multiparous mothers (with more anencephaly among primiparas). 31% of the malformations were in premature infants. Perinatal mortality was 41%, the most common

causes being heart defects and alimentary tract malformations. A strict correlation between the age of the mother and detection of fetal malformation was found only in cases of mongolism. 1 table. 5 figures. 15 references. (AEd)

569. BELLOC, N. B.
Deaths from congenital heart disease in California, 1945-64.
Pub Health Rep 82:621-6, Jul 67.

The major portion of deaths from congenital cardiovascular malformations in California, 1945-64, occurred in infants, and the death rate was 25% higher in Negroes. Now, however, children born with congenital heart disease live longer, as indicated by the increased proportion of deaths due to defects that occur in older persons. Surgical operations were listed for 26% of death certificates for persons with congenital cardiovascular malformations in 1964, an increase of 11% over 1955, but death rates from this cause have declined at almost the same rate as overall death rates for infants and children under 5. In recent years, the death rate has been increasing in the age group over 20 years in which 30-40% who died had had surgery. In age group 5-19, the death rate increased but by 1960 had begun a downward trend which continued until 1964 and hopefully will continue. 3 tables. 4 figures. (AEd)

570. BISHOP, E. H., ISRAEL, S. L., BRISCOE, C. C.
Obstetric influences on the premature infant's first year of development. A report from the collaborative study of cerebral palsy.
Obstet Gynec 26:628-35, Nov 65.

Analysis of prospective data demonstrated that at the end of his first year, the premature infant who survives is burdened by a high risk of psychologic and neurologic abnormalities, their incidence being inversely proportional to the birth weight. This risk of abnormality is heightened further by increasing parity, a history of maternal vaginal bleeding, extremes in duration of labor, abnormal presentations, and complicated methods of delivery. Other more subtle, but possibly equally serious, associations may exist which also influence the first-year outcome for the premature infant. 1 table. 9 figures. (AEd)

571. BOCK, H. B., ZIMMERMAN, J. H.
Study of selected congenital anomalies in Pennsylvania.
Pub Health Rep 80:446-50, May 67.

235 cases of imperforate anus, omphaloceles, tracheoesophageal fistulas, diaphragmatic hernias, and intestinal obstructions were found in 216,005 infants born in Pennsylvania during 1962 (1/1000 births). 88% were reported on hospital questionnaries and 55% on birth certificates. Of the infant deaths, 89% were reported on the death certificates as caused by these congenital anomalies. 32% of the babies with these defects weighed 2,500 grams or less at birth compared with 8% of all babies weighing this little. Age of mother and birth order were not significantly different between babies with these defects and all babies. Over 50% of babies with these anomalies died before 1 year of age. This study verifies that congenital malformations are not reported completely and accurately, particularly on birth certificates. 7 tables. (AEd)

572. CHARLTON, P. J.
Seasonal variation in incidence of some congenital malformations in two Australian samples.
Med J Aust 2:833-5, 29 Oct. 66.

Data from Children's hospitals in Adelaide and Brisbane were inspected for seasonal variation in the incidence of cleft palate and/or lip and congenital dislocation of the hip. Results are compared with previous studies. The cleft lip and palate group showed no consistent significant variation. Congenital dislocation of the hip, on the other hand, showed a significantly increased incidence in children born during the winter months in both cities and also in Birmingham. (AEd)

573. CHITHAM, R. G., MACIVER, E.
A cytogenetic and statistical survey of 105 cases of mongolism.
Ann Hum Genet 28:309-15, Mar 65.

An unselected series of 105 cases of mongolism was karyotyped by culturing from the blood only in 93 instances, from the skin only in 9 instances, and from both tissues in 3 instances. 5 examples of translocation and 3 of mosaicism were identified. Analysis of maternal age incidence suggests that about half the cases were caused by conditions independent of maternal age. 2 tables. 4 references. 2 appendixes. (AA)

574. CHWALIBOGOWSKI, A., KRYSOWSKA, A., NORSKA, I.
Fate of children after birth injuries of the central nervous system.
Pediat Pol 39:1037-44, Sep 64. (POL)

336 infants born at term, in whom there was central nervous system damage in the perinatal period, were observed. The infants were divided into 3 groups according to the severity of damage. Studies were carried out in 71% of those aged 1-5. In 4%, early cerebral palsy developed; in 9% there were personality changes. An association was found between perinatal trauma of the central nervous system and considerable retardation in mental, speech, and static function development. 1 table. References. (AEd)

575. COLLMANN, R. D., KRUPINSKI, J., STOLLER, A.
Incidence of infectious hepatitis compared with the incidence of children with Down's syndrome born nine months later to younger and to older mothers.
J Ment Defic Res 10:266-8, Dec 66.

Having previously established that the incidence of Down's Syndrome rose 9 months after increased incidence of infective hepatitis from 1952/3 to 1963/4, we have examined this association in the present paper in relation to maternal age. The results indicate that the association depends to a major degree on the increase of affected births to mothers aged 35 years and older. 1 table. 4 references. (AA)

576. CONWAY, H., WAGNER, K. G.
Incidence of clefts in New York City.
Cleft Palate J 3:284-90, Jul 66

A survey of cleft lip and palate among live births as reported on birth certificates in New York City. Race, prematurity, age of mother, and sex of the offspring all showed variations in the overall incidence of cleft lip and palate. The male with cleft palate is severely afflicted

with multiple anomalies, especially in association with prematurity. He is more severely affected in all 3 anomalies and the incidence of multiple malformation is increased 2 to 8 times, regardless of sex, in premature infants. 12 tables. 4 references. (AEd)

577. DAY, R. W.
The epidemiology of chromosome aberrations.
Amer J Hum Genet 18:70-80, Jan 66.

Significant differences in distribution of patients with chromosomal abnormalities in space and time and by selected host characteristics have been observed. While few epidemiological studies of aneuploidy have been reported, the evidence suggests that environmental factors may be important in the origin of nondisjunction. Advances can be anticipated by prospective epidemiological techniques. However, methodological problems include the large numbers needed for investigations, the necessity of specific diagnoses, and the association between high fetal loss and aneuploidy. 1 table. 30 references. (AA)

578. DONAHUE, R. F.
Birth variables and the incidence of cleft palate: Parts I and II.
Cleft Palate J 2:282-90, Jul 65, and 4:234-9, Jul 67.

6,070 infants with cleft palate and/or lip were identified among 5,838,855 birth records from 17 state departments of vital statistics. A control group, selected by taking the record fifth in order after the cleft birth record, was compared for sex, color, plurality of birth, maternal and paternal age, birth order, length of pregnancy associated with anomalies, classification of cleft, complications of pregnancy, and prenatal care. More of the infants with cleft palate than normal infants were premature and had associated anomalies. Distribution of cleft-type was comparable to that reported by other investigators. 13 tables. 47 references. (AEd)

579. DUFKOVA, H.
Registration of congenital developmental defects.
Cesk Pediat 21:361, Apr 66. (CZ)

No English summary.

580. ERHARDT, C. L., NELSON, F. G.
Reported congenital malformations in New York City, 1958-1959.
Amer J Public Health 54:1489-506, Sep 64.

Reviews data from routine vital records of congenital malformations, refers particularly to limitations of these records and to arbitrary restrictions placed upon them merely to facilitate routine handling of the data. Includes a summary of variations noted within each of the major types of congenital malformations. Points out need for more detailed and more accurate vital records for use in epidemiological studies of congenital malformations. 8 tables. References. (Ed)

581. FORSSMAN, H., AKESSON, H. O.
Note on mortality in patients with Down's Syndrome.
J Ment Defic Res 11:106-7, Jun 67.

A method to compare mortality of patients with Down's syndrome with that in a corresponding normal population. The number of years the studied persons survived during the period of observation was divided by the number of years an equal number of persons of exactly the same age could be expected to survive. The ratios are compared with actual data from Sweden. There is fairly good agreement for male mongols, but for females, actual mortality in the early age group is much higher; in the later age groups, lower. 2 tables. 4 references. (Ed)

582. GILMORE, S. I., HOFMAN, S. M.
Clefts in Wisconsin: Incidence and related factors.
Cleft Palate J 3:186-99, Apr 66.

Birth certificate data and supplemental information from the Bureau for Handicapped Children, Wisconsin, analyzed for 2,166 cleft lip and/or palate births, 1943-1962. Incidence over 20 years was 1/812 live births. Factors examined for association with cleft births were: sex, race, month of birth, birth order, birth weight, maternal age, paternal age, urban-rural residence, complications of labor or delivery, other congenital anomalies, familial aggregations, and previous spontaneous abortions. 17 tables. 12 references. (AEd)

583. GOLDSTEIN, H., HENDERSON, M., GOLDBERG, I. D.
Perinatal factors associated with strabismus in Negro children.
Amer J Public Health 57:217-28, Feb 67.

Four hundred and six Negro single births, born since 1950 in Maryland and diagnosed with strabismus before 1964, were studied retrospectively. A birth certificate control was selected for each case matched according to race, sex, plurality, hospital of delivery, age of mother, and date of delivery. Children with other diagnosed neurological conditions were excluded from the case group. Significant findings for the case group were: (1) lower average birth weight, (2) higher prematurity rate, (3) shorter duration of pregnancy, (4) more immaturity (weight less than 2,001 gms and gestation less than 36 weeks), (5) greater proportion of mothers with at least one previous pregnancy loss (abortion or stillbirth), and (6) higher proportion of major abnormalities at birth or shortly thereafter, the difference confined principally to respiratory conditions causing anoxia. Hospital records showed similar frequencies, between cases and controls, of specific medical and mechanical complications of pregnancy and delivery. 7 tables. 22 references. (AEd)

584. HALEVI, H. S.
Congenital malformations in Israel.
Brit J Prev Soc Med 21:67-77, Apr 67.

The purpose of this study in Israel, 1949-1964, was to examine cases of congenital malformation as recognized by doctors, etc., at birth and during postnatal hospitilization. Rates of malformation according to sex of infant, age of mother, parity, season of birth, ethnic origin of mother are given. In the International Classification of Diseases and Causes of Death (1957), there is no differentiation between an acquired and a congenital deficiency. This paper describes and discusses data to study this differentiation in malformations. 11 tables. 32 references. (Ed)

585. Hay, J. D.
Population and clinic studies of congenital heart disease in Liverpool.
Brit Med J 5515:661-7, 17 Sep 66.

Previous attempts to estimate incidence of congenital heart disease are reviewed. The Liverpool Malformations

Registry is described and the difficulties inherent in this type of investigation are emphasized. Notifications to the Liverpool registry suggest a lower incidence than that recorded from some other centers, but the figure is likely to increase as more cases come to light. Of babies born with a definite cardiac malformation, in Liverpool during 1964, 41% died before the end of 1965, 22% before age 7 months. Incidence of the various malformations diagnosed in the survivors differs from that among Liverpool school children, owing mainly to subsequent revision of the initial diagnosis. 7 tables. 50 references. (AEd)

586. HAY, S.
Incidence of clefts and parental age.
Cleft Palate J 4:205-13, Jul 67.

A study of over 6,000 cases of cleft lip and palate reported on birth certificates. Incidence was found to be increased among older parents when clefts were the only malformation reported. This relationship to parental age did not appear for cleft lip without involvement of the palate. For clefts occurring in conjunction with other congenital malformations, the relationship to older parental age was shown for cleft lip and palate, for cleft palate, and for cleft lip. These results were suggested as further evidence for multiple causation of these particular congenital anomalies. 9 tables. 3 figures. 5 references. (AEd)

587. HIGGINS, I. T.
The epidemiology of congenital heart disease.
J Chronic Dis 18:699-721, Aug 65.

During the past 30 years, mortality rates for congenital malformations of the circulatory system in the white population of the U.S. have declined in those under 1 year and increased slightly in those aged 1-14 years. For nonwhites, there has been an increase in both groups. Incidence of congenital heart disease (CHD) in the U.S., U.K. and Sweden is about 5 per 1,000 births. At least 20,000 babies with CHD will probably be born each year in the U.S. Some genetic factors possibly associated with CHD are: chromosomal abnormalities; familial aggregations, and recessive inheritance. Some environmental factors are: rubella epidemics, radiation, thalidomide treatment, season of birth, and high altitudes leading to anoxia. No consistent associations have been shown between CHD and parental age, birth order, or social class. In the majority of cases of CHD, neither genetic nor environmental factors can as yet be implicated. The search for environmental factors would appear to offer the most promising line of epidemiological research. Studies of pregnant women and of women who have already borne a malformed child should prove fruitful. Variation of frequency of CHD in relation to race, geography, altitude, background irradiation, and epidemic patterns are relevant to current etiological patterns. 7 tables. 143 references. (AEd)

588. HOLMES, C., MACLEOD, K. I., BASHE, W.
Birth defects registry, evaluation of a new program in Cincinnati.
Ohio Med J 62-563-9, Jun 66.

In 1964, a Birth Defects Registry was inaugurated to obtain a base line incidence value for birth defects in the Cincinnati area. Main sources of data are hospitals, and birth and death registries. Hospital reporting of birth defects is poor, particularly that relating to defects in earlier births, but could become available if charting procedures were modified, or if family interviews were conducted by health department personnel. At least one hospital has shown that a high level of performance is possible. Birth certificates contribute relatively little. Death certificates are an effective source in neonatal deaths which must be maintained so long as hospital reporting remains poor. Stillbirths certificates should be included. A Long Form as an instrument for followup study is only partially successful. 7 tables. 3 figures. 1 reference. (AEd)

589. HORN, B., CSORDAS, T., DOMOTORI, J.
On the problem of developmental anomalies.
ZBL Gynaek 87:1180-9, 28 Aug 65. (GER)

A study of congenital developmental anomalies in the Budapest Medical University Hospital, 1953-1962. 138 anomalies occurred—an incidence of 0.61% which remained the same over the 10 years—42.7% were boys, 51.4% were girls. In 61 of the 138 cases, etiological relationships could be established. Infections during the first trimester play the most important role. Chemical and curative damage and damage resulting from ionized rays were found to a lesser degree. Hereditary factors could not be detected in any of the cases. 6 tables. 46 references. (AEd)

590. HORNER, R., LANZKOWSKY, P.
Incidence of congenital abnormalities in Cape Town.
S Afr Med J 40:171, 19 Feb 66.

A retrospective survey on 6,502 infants delivered at 2 maternity hospitals, University of Cape Town. Priority in these units is given to primiparous patients, grand multiparae, and other women with medical or obstetrical complications. It would appear that incidence of congenital abnormalities of all types in white infants is higher than in the Cape colored, and higher than the mean determined from results obtained by 19 authors from different countries. This pilot survey has the inherent fallacies shared by most retrospective surveys, namely that it is dependent on a number of observers and accuracy varies with the degree of care, experience, conscientiousness, and method of the examiners. Because of these fallacies and the relatively small numbers involved, one must be cautious about drawing conclusions. The survey is reported in the hope that it will provoke larger prospective surveys on this subject. 2 tables. 3 references. (AEd)

591. INGALLS, T. H., KLINGBERG, M. A.
Congenital malformations. Clinical and community considerations.
Amer J Med Sci 249:316-44, Mar. 65.

The epidemic of post-rubella anomalies in Australia, 1940-1941, and the pandemic of thalidomide embryopathies in Europe and elsewhere, 1960-1961, have demonstrated clearly the importance of monitoring programs to record occurrence of congenital malformations. A primary need has been for standardized methods of classifying and reporting. This communication reviews some of the background knowledge in the field, examines principles governing a standardized classification, and reappraises important clinical and epidemiologic contributions of the last two decades. Birth certificates, infant and fetal death certificates can provide accurate data to construct community surveillance systems for

congenital malformations and to initiate clinical registries of malformed babies. The basis of a standardized classification that satisfies both clinical and epidemiologic criteria is the need to limit, to diagnose rapidly, to name, to record, and to report at least one (and by custom this is the defect constituting the greatest handicap) of the many malformations that may be present and recognizable at birth. 1 table. 13 figures. References. (ed)

592. JESPERSEN, C. S., LITTAUER, J., SAGILD, U.
Measles in pregnancy as a cause of stillbirth and malformations. A restrospective study in Greenland.
Ugeskr Laeg 128:1076-80, 15 Sep 66. (DAN)

The results of a retrospective investigation of 155 pregnant women suffering from measles during various epidemics in Greenland are discussed. 33 women contracted measles during the first trimester and 1/3 of them miscarried. 14% of the live born infants had congenital deformities, 18% were premature, and 23% died within the first year. (From Excepta Medica Sec 17, Vol 13, No. 6, June 1967.) (Ed)

593. JONES, W. R.
Anencephalus: A 23-year survey in a Sydney hospital.
Med J Aust 1:104-6, 21 Jan 67.

A retrospective survey of anencephalus in a Sydney hospital over a 23-year period. There were 67 cases among 90,864 infants (0.74 per 1,000). The most important clinical association of anencephalus is hydramnios, an association facilitating diagnosis. An approach to the management of pregnancy that gives maximum consideration to the psychological state of the mother is suggested. There was a high incidence of associated congenital abnormalities in this series; cleft palate was unusually common. 2 tables. 1 figure. 20 references. (AEd)

594. KALLÉN, B., WINBERG, J.
Experiences with continuous registration of malformations.
Lakartidningen 63:1941-51, 18 May 66. (SW)

The thalidomide catastrophe brought to public attention different ways of preventing the use or limiting the effect of new teratogenic drugs. Preclinical experiments on animals are of limited value. It is necessary to study teratogenic factors directly in human beings. Retrospective methods are of some value when unusual malformations arise, but are vitiated by fundamental sources of error. Prospective studies are too time-consuming for an early warning system. Since April 1, 1964, newborn babies with malformations have been continously registered in Sweden. The first 8 months' results of this registration are reported. 1,263 malformed babies were included. This investigation may gradually give an idea of the "normal" frequency of various malformations and malformation syndromes and their spontaneous variation. It should then be possible, with the further continuous registration of malformations, to observe relatively quickly any change in the malformation frequency and to take steps to analyze its cause. 5 tables. 4 figures. 8 references. (AEd)

595. KARIM, M., BADAWY, S., EL-GHOLMI, A.
Congenital malformation in U.A.R.
J Egypt Med Ass 49:611-8, 66.

Study of congenital malformations at birth at Ain Sham University. Incidence was 2% the first two years of the study. However, anencephaly accounted for 22% of the malformations the first year and 40% the second year. Some cases were caused by thalidomide. Anencephaly occurred more often in Caucasians than in Negroes. It appeared to be related to incidence of spina-bifida and meningocele, indicating an etiological relationship that may be repeated in the same family. Other congenital anomalies are discussed including hydrocephalus, hare lip and cleft palate. 8 references. (AEd)

596. KERREBIJN, K. F.
Incidence in infants and mortality from congenital malformations of the circulatory system.
Acta Paediat Scand 55:316-20, May 66.

Investigation of congenital malformations of the circulatory system in live births in Leiden, 1958, and as the underlying cause of death, 1951-62. Estimates considered representative of the Netherlands as a whole are given for incidence and mortality. 2 tables. 11 references. (AEd)

597. KLEMETTI, A.
Relationship of selected environmental factors to pregnancy outcome and congenital malformations.
Ann Paediat Fenn 12:Suppl 26:1-71, 66.

Report of unselected series of gravidas in the province of Kiski-Suomi in Central Finland, 1963-1964. The frequency of malformations and of abortions and stillbirths and subsequent deaths of children and their possible dependence on various exogenous factors were studied, using a prospective method. The series included 3,674 mothers. 2.8% of the infants had malformations, 1.4% were stillborn, and 0.8% of the pregnancies (17-27 weeks) resulted in abortions. Significant differences were found when these cases were compared with a control group (no pathologies) for maternal age, exposure to viruses, and use of vitamins. Other findings are discussed. In the comparison of the prospective and retrospective methods, the prospective method proved to be more reliable than the retrospective method. 35 tables. 18 figures. 248 references. (AEd)

598. KLEMETTI, A., SAXEN, L.
Prospective versus retrospective approach in the search for environmental causes of malformations.
Amer. J. Public Health 57:2071-5, Dec 67.

A study to evaluate the reliability of retrospective studies in the search for environmental causes of malformations. A retrospective interview of mothers of 203 dead or malformed children and of a control group of the same size. Replies were compared with those obtained in a prospective study of the same mothers made in the fifth month of pregnancy. The comparison dealt with information on the occurrence of nonchronic diseases and the consumption of drugs during early pregnancy. The results indicated that only about 25% of the prospectively collected information was accurately elicited in the retrospective study. In addition, the result showed that 2/3 of the positive replies in the retrospective study could not be confirmed from the prospective interview or information collected from other sources. (AEd)

599. KUCERA, J., PELESKOVA,
Comments on congenital defects in perinatal mortality in 1962 in the Czechoslovakian SSR.
Cesk Pediat 19:846-51, Sep 64. (CZ)

In 1962, 785 infants died (perinatal and stillbirths) of congenital malformations, 0.4% of all deaths. There was

a correlation between such defects and advanced age of the mother, and economic conditions in certain regions. Congenital defects were most frequently cardiac defects and malformations of the intestinal and urinary tracts. 1 table. 4 figures. (AEd)

600. LECK, I.
Changes in the incidence of neural-tube defects.
Lancet 2:791-3, 8 Oct 66.

After declining in the period 1940-1949, the incidence of anencephalus in Birmingham (Eng.) rose to a peak in 1956-57 and has since fallen again. The rate for spina bifida aperta and cephalocele exhibited parallel fluctuation. The decline in the stillbirth rate before 1950 and after 1957 and its arrest between these dates were due in part to these fluctuations. The combined stillbirth and infant death rate among children with spina bifida or cephalocele fell from 84% in 1950-51 to 56% in 1964-65. 1 table. 3 figures. 8 references. (Ed)

601. LECK, I.
Incidence and epidemicity of Down's Syndrome.
Lancet 2:457-60, 27 Aug 66.

1.6 per 1,000 (513 children) out of 316,954 children born alive in Birmingham, England, 1950-1965, had Down's syndrome. This rate showed no significant change after an epidemic of infective hepatitis. The study revealed that weak clusters of affected births may tend to occur at intervals of approximately 100 days, but that these clusters do not happen synchronously in places less than 4 kilometers apart. It is concluded that Down's syndrome incidence may be affected by an epidemic agent, but this influence is much less than has been suggested. 6 tables. 4 figures. 13 references. (AEd)

602. LECK, I., RECORD, R. G.
Seasonal incidence of Anencephalus.
Brit J Prev Soc Med 20:67-75, Apr 66.

Incidence of anencephalus showed fairly consistent seasonal variation (a winter peak and a summer trough) in Scotland until 1958. Since then, much of the fluctuation has been obliterated by an increase among summer births. A similar disturbance of the usual pattern began in Birmingham in 1955. Birmingham anencephalics born since 1940 were used to investigate aetiological aspects of seasonal variation. Viable and aborted sibs of anencephalics showed no evidence of seasonal pattern. Before 1955, anencephalics conceived in March-April had a shorter mean duration of gestation and a lower mean birth weight than those conceived from September-February. But after 1955, there was little difference in gestation and birth weight between the groups. 5 tables. 9 figures. 13 references. (AEd)

603. LINDQUIST, J. M., PLOTKIN, S. A., SHAW, L.
Congenital rubella syndrome as a systemic infection. Studies of affected infants born in Philadelphia, Pa. U.S.A.
Brit Med J 5475:1401-06, 11 Dec 65.

Between July 1964 and March 1965, 40 infants with serious abnormalities were born in Philadelphia, Pa., following a severe rubella epidemic in 1963-64. 20 of the infants were thought to be probable instances of rubella-induced damage, showing cataracts, heart disease, signs of systemic infection including lesions of the bones and bone-marrow. Rate of virus isolation from the nasopharynx of rubella syndrome infants was 77% in first month of life, and declined at a regular rate approaching zero at 6 months of age. Serological studies are reported concerning the presence of neutralizing- and the absence of complement-fixing antibodies in infants with rubella syndrome and the localization of neutralizing antibody to the macroglobulin fraction of serum protein. 6 tables. 22 figures. 30 references. (Ed)

604. LUMIO, J. S., PIIRAINEN, H., PALJAKKA, P.
Marriage between the deaf and hereditary deafness in Finland.
Acta Otolaryng (Stockholm) 62:265-76, Sep 66.

According to the 1950 population census, Finland has 130.7 deaf per 100,000 inhabitants, a high figure. A study was conducted, 1961-65 of marriages between deaf persons. They totaled 556 in June 1961, and 554 of them were covered by this study. The 554 marriages between deaf partners produced 1,126 children, an average of 2.2 per marriage. This is appreciably lower than the general level in the country. Of the children born of the marriages, 4.6% were deaf. To establish genetic deafness, a family tree was compiled for each proband back to at least the 3rd generation, and included the children of the probands. Rosen's statistical method was used to test the geneological analysis. The genetic analysis revealed that 52% of the isolated cases were genetic. (AEd)

605. MONIF, G. R., HARDY, J. B., SEVER, J. L.
Studies in congenital rubella, Baltimore 1964-65. 1. Epidemiologic and virologic.
Bull Hopkins Hosp 118:85-96, Feb 66.

1,086 pregnant women were studied at Johns Hopkins for possible effects of the 1964 rubella epidemic. Of those who had rubella in the first trimester, 50% of the live born infants had defects compatible with rubella syndrome. For those affected in the second trimester, one death occurred from abruptio placenta. Rubella virus was isolated from the placenta but not from the fetus in this one case. Isolated auditory dysfunction was the sole manifestation of the congenital rubella syndrome in 3 of 8 affected infants. In the group in which clinical rubella occurred, prior history of disease bore little relationship to subsequent susceptibility. 3 tables. 1 figure. 16 references. (AEd)

606. MORTON, W. E., HUHN, L. A.
Epidemiology of congenital heart disease. Observations in 17,366 Denver school children.
Jama 195:1107-10, 28 Mar 66.

During an evaluation of heart disease screening methods among 17,366 Denver parochial school children, congenital heart disease (CHD) epidemiologic data were collected. The CHD prevalence rate was 4.6 cases per 1,000 enrolled and showed no significant variation in the age range studied, between sexes, among 3 ethnic groups, or among 7 socioeconomic strata. Most cases were simple acyanotic defects in persons with few or no symptoms. Atrial-septal defect and valvular pulmonic stenosis were the most often encountered. Because the CHD prevalence rate would have been appreciably lower had only a single screening method been employed and because the generally lower CHD prevalence rates reported by most

other studies are related to their simpler screening methods, it is clear that most available CHD prevalence estimates in school children are underestimates. 6 tables. 25 references. (AEd)

607. NEWCOMBE, H. B.
Familial tendencies in diseases of children.
Brit J Prev Soc Med 20:49-57, April 66.

In British Columbia, registrations of live births, stillbirths, and deaths in infancy and childhood, together with records from a register of handicapped children and adults, were "linked" by computer into family groupings. 12,827 "affected" children are represented together with their unaffected brothers and sisters from among 215,795 children born 1952-58. Almost all the conditions studied showed some tendency to repeat in the brothers and sisters of cases. Among 20 selected conditions, widely different degrees of familial association were observed. "Monstrosity," blindness, and death from diarrhea were among the most likely to recur in the later-born siblings of index cases, while congenital malformations of the circulatory system showed the smallest measurable familial tendency. A wider range of diseases may be more strongly correlated with social circumstances than heretofore thought. 11 tables. 10 references. (AEd)

608. NEWCOME, H. B., TAVENDALE, O. G.
Effects of father's age on the risk of child handicap or death.
Amer J Hum Genet 17:163-78, Mar 65.

Special risks to children associated with age of the father have been studied from 8,928 registrations of child handicaps and deaths among individuals born in British Columbia, 1953-58. Handicap and death records were "linked" by computer to the birth registrations. The combined data for all causes show a significantly increased risk among children of fathers aged 45 and over. This effect persists after possible contributions from a maternal age effect and the close correlation of fathers' with mothers' ages have been removed. A similar and statistically significant paternal age effect is observed for respiratory diseases and congenital malformations. Possible origins of the paternal age effects are discussed. Elevated frequencies of mutant genes or chromosomes in the reproductive cells of aging fathers might perhaps contribute to the effect as seen in the data for congenital malformations. Such a contribution would be difficult to establish, however, without more information. 14 tables. 3 figures. referenees. (AEd)

609. PENROSE, L. S.
The effects of change in maternal age distribution upon the incidence of mongolism.
J Ment Defic Res 11:54-7, Mar 67.

Only two figures are available on the absolute incidence of mongolism in England and Wales: 1/629 for 1938 and 1/666 for 1951. Both figures are based on recorded births, not including miscarriages. However, relative incidence rates in different maternal age groups are available. These can be applied to the distribution of all births (converted into proportions so as to be independent of changes in the number of births) by maternal age for any year. Examples are given for 1939 and 1964. Changes in the maternal age distribution between these two periods results in a 24% decrease in the relative incidence of mongolism from 1939 to 1964. 3 tables. 1 figure. 3 references. (Ed)

610. PITT, D.
Screening tests for biochemical defects in infancy.
Med J Aust 1:487-90, 19 Mar 66.

Universal testing techniques for biochemical defects among infants are needed, so that indicated treatment may be initiated early. The incidence seems to be as high as 1 in 4,000. The most important is phenylketonuria, which up until now has been diagnosed by urine tests. Experience in Victoria has confirmed the incompleteness of this method. Of 13 patients with phenylketonuria, born since 1961, only 5 were found by present methods. In view of the inconstant excretion of metabolities in the urine, a universal blood testing method is needed, such as the Guthrie test. American experience indicates its efficiency in detecting cases more frequently (as high as 1 in 8,000), and earlier (before the end of the first week). 3 tables. 2 figures. 7 references. (AEd)

611. RENWICK, D. H.
Estimating prevalence of certain chronic childhood conditions by use of a central registry.
Pub Health Rep 82:261-9, Mar 67.

Estimates of minimal age-specific "prevalence" rates for 1964 of certain chronic diseases of children are made from data in the Central Registry in British Columbia begun over a decade ago. Problems in the actual rates obtained are discussed in terms of the completeness of registration of cases. 4 tables. 1 figure. 14 references. (Ed)

612. RENWICK, D. H. MILLER, J. R., COLLINS, J. F.
Why search for congenital defects.
Canad Med Ass J 96:1423-5, 27 May 67.

Registries have many uses in the study of congenital defects: (1) as a central clearing house of information and as a referral liaison center, (2) for studies on prevalence and incidence, (3) for studies involving specific combinations of congenital defects, (4) for studies of mortality associated with specific defects or combinations thereof, (5) for genetic and familial studies, and (6) for studies of different types of rare cardiovascular malformations that would be difficult to find in small survey samples. Limitations of this method for research purposes are discussed. 14 references. (Ed)

613. ROBINSON, N. M., ROBINSON, H. B.
A followup study of children of low birth weight and control children at school age.
Pediatrics 35:425-33, Mar 65.

Comprehensive followup of survivors of matched groups of low and mature birth weight infants, born in Wake County, North Carolina, when the children were 8 to 10 years old. A higher proportion of the tiniest infants had sustained major physical defects (24% vs 2% in other groups). This group was significantly smaller in weight and head size, and tended to come from more disadvantaged socioeconomic backgrounds. Comparisons of data from physical and psychological examinations, social histories, and school reports tended to find only a few significant differences among the groups, all of which were probably related more closely to social background than to birth weight per se. The data indicate that, aside from physical size and major physical defects, social class assumes much more importance than does birth weight in determining a child's developmental prognosis. 5 tables. references. (AEd)

614. ROUQUETTE, C.
A French prospective survey on congenital malformations. (Survey of the Institut De La Sante Et De La Recherche Medicale.)
Concours Med 87:6443-4, 6447-8, 6 Nov 65. (FR)

A survey to determine causes of congenital malformations of exogenous origin. 20,000 to 30,000 cases, are to be followed from pregnancy to the birth of the child and after. In the third month of pregnancy the women will be questioned. The infant will be examined by a pediatrician who, for the first year, will followup the case in collaboration with the Protection Maternelle et Infantile. At the same time laboratory tests will be processed. Also, the mothers' medications will be analyzed. Similar surveys are enumerated. (AEd)

615. SALLER, K.
On the frequency of malformations in Bavaria. 3.
Munchen Med Wschr 107:262-4, 5 Feb 65. (GER)

The incidence of malformations was at a minimum in Bavaria in 1963 compared with the statistics since 1959. Decreases in thalidomide-type malformations were most frequent but since they have not disappeared completely although the drug has been withdrawn from the market, other factors besides the drug may be related to these malformations. Seasonal occurrences are discussed. 1 figure. 7 references. (AEd)

616. SATO, M.
Statistics on congenital abnormalities in Japan.
J Jap Obstet Gynec Soc 18:74-82, Feb 66. (JAP)

No English summary.

617. SCHURTER, M., LETTERMAN, G.
The incidence of cleft lip and cleft palate. An analysis of the literature with the addition of statistics.
J Amer Med Wom Ass 21:915-20, Nov 66.

150 studies of cases of cleft lip and palate have been examined. A birth population sample of over 22 million has been compiled. Overall incidence is 1 in 897 in the years 1894-1965 inclusive. The data represent 14 countries, referring predominantly to Caucasians, but also including American Negroes and Indians, African Negroes, Mexicans, and Japanese. The highest incidence noted was in Japan (1/373) and the lowest in the State of New Jersey (1/2,077). Tables show the incidence of cleft lip and palate from birth certificates, from hospital records, and a combination of both. Those from hospital records seem to be more accurate. 3 tables. 2 figures. 56 references. (Ed)

618. SCOTT, L.P., 3D, AVERY, G.B., MCCLENATHAN, J.E.
Congenital heart disease in infants.
Clin Proc. Child Hosp (Wash) 22:181-93, Jul-Aug 66.

Results of autopsies on infants under 1 year of age dying from heart disease at Children's Hospital (D.C.) showed that 92% died within the first month of life, but the rate of death fell off for children of 6 months of age. Although great strides have been made in treatment of the older child with congenital heart disease, mortality rates remain high for infants born with congenital heart disease. Progress will depend on: (1) early recognition of heart disease in the neonate, (2) prompt and accurate diagnosis, (3) better understanding of metabolic needs of the newborn with heart disease, and (4) improved and radical changes in current surgical approach. 4 tables. 11 references. (Ed)

619. SEGALL, A., MACMAHON, B., HANNIGAN, M.
Congenital malformations and background radiation in Northern New England.
J Chronic Dis 17:915-32, Oct 64.

No evidence of consistently elevated rates for all malformations or of a consistent increase in risk with respect to any individual category of malformations was found in births to residents of the high bedrock radioactivity area. 7 tables. 2 maps. references. (Ed)

803. SIEGEL, E., CHINNOCK, R. F., HYMAN, C. B.
Hemolytic disease of the newborn. Review of deaths in California.
Calif Med 105:81-8, Aug 66.

620. SIGLER, A. T., COHEN, B. H., LILIENFELD, A. M.
Reproductive and marital experience of parents of children with Down's syndrome (mongolism).
J Pediat 70:608-14, Apr 67.

An epidemiologic study of parents and siblings of 216 children with Down's syndrome and of 216 controls matched for maternal age at time of child's birth, demonstrated no differences in frequency of abortions, still births, or congenital abnormalities. Nor did the siblings of the children with Down's syndrome have a higher frequency of deaths from acquired causes than did the siblings of the controls. Mothers in the 2 groups were similar in fertility and there were no differences in their menstrual histories. A significantly higher frequency of multiple marriages prior to the birth of the index child was observed in the mothers of the affected children. Some possible interpretations of these observations are discussed. 5 tables. 13 references.

621. SIGLER, A. T., LILIENFELD, A. M., COHEN, B. H.
Parental age in Down's syndrome (mongolism).
J Pediat 67:631-42, Oct 65.

The relative significance of maternal and paternal age was evaluated as part of an epidemiologic study of Down's syndrome in Baltimore, Maryland. Using a control group, matched by birth certificates, parental age was studied by controlling for maternal and then for paternal age. There was no positive statistical association of paternal age with Down's syndrome. The relationship between Down's syndrome and increased maternal age, however, remains unequivocal. The early secondary peak reported previously in maternal age distribution in Down's syndrome was again found, and shown to be an artifact—a reflection of the high frequency of total births at this maternal age. Selection of reliable control data in the study of the parental age effect, both in Down's and other syndromes, was stressed. The adequacy of control ages used in the study of the parental age effect in other trisomic conditions is questioned. 7 figures. 8 tables. 26 references. (AEd)

622. SILBERG, S. L., MARIENFELD, C. J., WRIGHT, H.
Surveillance of congenital anomalies in Missouri, 1953-1964.
Arch Environ Health (Chicago) 13:641-4, Nov 66.

A preliminary report of surveillance of congenital anomalies in Missouri, 1953-1964, disclosed 8,407 birth certificates with at least one significant congenital anomaly recorded. Average annual incidence was 7.4 per 1,000 live births. Significant differences between counties were found which warrant further epidemiological investigation. For study period, 11,081 single or multiple malformations were reported. 53% consisted of cleft lip and/or

palate, clubfoot, craniospinal, and external uretheral anomalies. Of total malformations reported there were 6,800 cases with a single anomaly, 838 with 2, 549 with 3, 160 with 4, 42 with 5, 11 with 6, and 6 with 7 anomalies. Continued surveillance of human as well as animal malformations are planned. 3 tables. 5 references. (Ed)

623. SMITHELLS, R. W., CHINN, E. R.
Spina bifida in Liverpool.
Develop Med Child Neurol 7:258-68, Jun 65.

Incidence of spina bifida (including cranium bifidum) in Liverpool, England, 1960-63, was 3.5 per 1,000 total births. There was an excess of winter births over summer. The sex ratio was 1.2 females to 1 male and this ratio did not vary with birth weight or gestation. Occurrence of spina bifida was not related to the length of the preceding fallow period. When mothers of spina bifida were compared with controls, the cases showed: an excess of primiparas; a higher proportion 20-24 years of age; a two-fold increase in incidence of abortion or stillbirth immediately before the birth of the index infant; an increase in the number of malformed children preceding the index birth; and a higher incidence of threatened abortions and hydramnios. (AEd)

624. STARK, C. R., MANTEL, N.
Effects of maternal age and birth order on the risk of mongolism and leukemia.
J Nat Cancer Inst. 37:687-98, Nov 66.

Maternal age and birth order effects on the risk of mongolism and leukemia were determined for children born in Michigan, 1950-1964. There was a striking association between maternal age and mongolism but birth order did not independently affect the risk of mongolism. Both maternal age and birth order independently affected the risk of death from leukemia, the risk of death from leukemia decreasing with advancing birth order and increasing with advancing maternal age. Except for the older maternal age groups, these trends for leukemia are in contrast to the effects of maternal age and birth order on death due to all causes. This contrast suggests maternal age and birth order may be closely associated with the etiological agents of childhood leukemia. 6 tables. 34 references. (AA)

625. STARK, C. R., MANTEL, N.
Lack of seasonal-or-temporal-spatial clustering of Down's syndrome births in Michigan.
Amer J Epidem 86:199-213, Jul 67.

Data from 2,431 Down's syndrome births, 1950-1964, in Michigan were used to detect temporal-spatial clustering. It is concluded that Down's syndrome is caused by a factor (or factors) randomly distributed in time and space. The strong association between Down's syndrome etiology, risk and advancing maternal (or paternal) age, and other epidemiologic and cytogenetic findings led to the characterization of Down's syndrome etiology as some event (or group of events) with a stable temporal-spatial distribution which irreversibly alters the probability of an error in the disposition of G-group chromosomal material during meiosis or in the young zygote. It is speculated that if meiosis can be shown to become less precise with advancing age, as shown for mitosis, the search for cause of Down's syndrome may be furthered on physiologic or environmental factors likely to have a direct effect on meiosis. 6 tables. 21 references. Appendix, with equations. (AEd)

626. STEVENSON, A.C., JOHNSTON, H.A., STEWART, M.I.P.
Congenital malformations. A report of a study of series of consecutive births in 24 countries.
Bull. WHO 34:Suppl 9-127, 66.

A survey, 1958-1964, of congenital malformations, 24 centers in 16 countries. Among 421,781 pregnancies, incidence of malformations was 12.7 per 1,000 hospital births. Each cause of death and up to 6 malformations could be coded for every live birth and stillbirth over 28 weeks gestation. Data include number of single and multiple births, by sex, malformation, maternal age, and survival for each center. Separate chapters discuss major malformations including Down's syndrome, neural tube defects, congenital heart disease, and cleft lip and/or palate. 42 tables. 52 references. (Ed)

627. STROLLER, A., COLLMANN, R. D.
Area relationship between incidences of infectious hepatitis and of the births of children with Down's syndrome nine months later.
J Ment Defic Res 10:84-8, Jun 66.

A highly significant and consistent area difference in the incidence of infectious hepatitis for the eastern and western divisions of metropolitan Melbourne, 1953/4 to 1956/7, has been demonstrated. For each of these years, there was a tendency for annual incidences of Down's syndrome to follow the pattern of infectious hepatitis in being greater in the east than in the west, but differences for the former only reached statistical significance ($P < 0.01$) in the year 1956, the peak year for the incidence of both. However, the difference for the overall 4-year period was significant ($P < 0.01$) for both diseases. As a by-product of this study, the inverse correlation between the annual incidence of infectious hepatitis and population density has been confirmed, and it is postulated that this relates to poorer sanitation which could be involved in the etiology of Down's syndrome. 1 table. 6 references.

628. STOLLER, A., COLLMANN, R. D.
Patterns of occurrence of births in Victoria, Australia, producing Down's syndrome (mongolism) and congenital anomalies of the central nervous system: A 21-year prospective and retrospective survey.
Med J Aust I:1-4, 2 Jan 65.

Study of the occurrence of mongolism, hydrocephaly, spina bifida, and anencephaly has produced a predicted pattern of concordant peaking for mongolism and hydrocephaly, and a continuance of the patterns for the other anomalies. The incidence rates obtained by these surveys are: (1) mongolism, 1.45 per 1,000 live births (State of Victoria, 1942-1957), (2) anencephaly, live and stillbirths, 0.72 per 1,000 total births (three large Melbourne maternity hospitals, 1942-1962), (3) spina bifida, 0.59 (determined as for anencephaly), (4) hydrocephaly, 0.65 (determined as for anencephaly). The evidence for an infective etiology in a high proportion of cases of mongolism and hydrocephaly is presented. Suggestion are given for biological investigation of the hypothesis that mongolism, hydrocephaly, and perhaps other congenital anomalies are due to interaction between virus and aging ovum at or around the time of conception. 1 table. 2 figures. references. (AEd)

629. THOMPSON, J. F., HARVEY, V. K., JR.
The "German Measles" epidemic in Indiana.
Amer J Obstet Gynec 95:55-60, 1 May 66.

Of the 0.38% of women delivered in Indiana in 1964 who had rubella, 15% had deformed infants. 1 table. 3 figures. (Ed)

630. WALLACE, H. M., FISHER, S. T.
Use of congenital malformation data reported on live birth certifieates.
Pub Health Rep 81:631-8, Jul 66.

A questionnaire survey in the U.S. in 1965 yielded the following results: 80% of the areas queried ask about the presence of congenital malformation on the live birth certifieate. A majority also request information about the type of malformation. This information is used by 31% of the areas for epidemiologic surveillance, by 45% for statistical analysis, and by 64% for followup services. Considerable variation was noted in the type of personnel performing the reviews and analyses and in the eriteria for selection of infants for followup service. A similar survey in 1953 showed strikingly similar patterns regarding the number of areas whieh did not request the reporting of eongenital malformations on their live birth certificates and the use of information for followup services. Suggestions for improving the completeness and accuracy of reporting congenital malformations on birth certificates are reviewed. 4 tables. 14 references. (AEd)

631. WIDOK, H., WIDOK, K.
Congenital abnormalities and the number of previous pregnancies.
Med Klin 59:1198-201, 24 Jul 64 (GER)

No English summary.

632. WULF, R., GIBSON, T. C., MEYER, R. J.
Congenital abnormalities in a Vermont county. Detection and medical care.
New Eng J Med 274:861-8, 21 Apr 66.

A retrospective study in Chittenden County, Vermont. The incidence of congenital malformations was 152.1 per 1,000 live births (based on 1,813 births in 1952). Information for 89% of all births came from multiple screening, questionnaires to parents, review of hospital records, death certifieates, and agencies for handicapped children. Age of infant when defect was discovered and distribution by extent of care required are discussed. The early discovery of congenital defects in this study was accomplished less frequently than in many prospective studies in whieh screening was likely to be more comprehensive and less representative of reality. The only method of improving early medical eare for ehildren handieapped by congenital defects is by serial observation of families over long periods by trained personnel. 7 tables. 39 referenees. (AEd)

633. ZYTKIESICZ, A., BOKINIEC, M., CZARKOWSKA, D.
Statistical analysis of fetal malformations with speeial eonsideration of some causes.
Pol Tyg Lek 20:1420-2, 20 Sep 65. (POL)

Among 18,573 live births during 10 years in the Medical Aeademy, Lublin, 617 cases of fetal malformation were observed, 3% of the total births. The malformations were analyzed with regard to environmental factors, age of mother, parity, and the frequeney and extent of malformations. 2 tables. 3 figures. 6 referenees. (Ed)

E. INFANT MORTALITY

634. ANONYMOUS
Continued improvement in infant mortality and stillbirth rates.
J Roy Inst Public Health 29:49, Mar-Apr 66.

Provisional figures for the first quarter of 1966 suggest a real check in the rising birth rate for England and Wales; also infant mortality and stillbirth rates have continued to fall to new low levels. Provisional numbers and rates of live births, stillbirths, and deaths at under 1 year of age are compared with 1956, 1964, 1965 first quarter data. 1 table. (AEd)

635. ANONYMOUS.
Declaration by the health ministry on obligatory registration of live and stillborn fetuses, death of an infant up to 7 days of age and death of the mother (24 Nov 1964).
Cesk Pediat 20:67-70, Jan 65. (CZ)

No English summary.

636. ANONYMOUS.
Decline in infant and child mortality.
WHO Chron 19:112-5, Mar 65.

Analysis of infant and child mortality in 21 countries 1951-55, and 1961. 28% of infant deaths were due to "other diseases peculiar to infancy and immaturity unqualified" (including hemolytic, hemorrhagic diseases, nutritional maladjustment, etc.); 22% were due to birth injuries and postnatal asphyxia and atelectasis; 9% were due to infectious respiratory diseases (influenza, pneumonia and bronchitis). Comparisons are made among countries and age of the infant at death. 3 tables. (AEd)

637. ANONYMOUS.
General information on maternal and infant mortality.
Bull Inst Nat Sante 21:919-28, Sep-Oct 66. (FR)

No English summary.

638. ANONYMOUS.
Infant mortality in the United States and abroad.
Statist Bull Metrop Life Insur Co 48:2-6, May 67.

A rate of 23.4 infant deaths per 1,000 live births in 1966 is an all time low for the U.S. but not the lowest compared with other nations. The highest rate (1963-64) among the states was Mississippi, followed by District of Columbia. Reduction in white infant mortality is recorded in many states but reduction in nonwhite infant mortality occurred only in the West where the nonwhite population is largely Indian. Of the major causes of infant mortality, immaturity showed the largest decrease followed by birth injuries and congenital malformations. Abroad, the Scandinavian countries, the Netherlands, Finland, and New Zealand report low infant mortality rates. Chart. 1 reference. (Ed)

639. ANONYMOUS.
Perinatal mortality decreasing.
Statist Bull Metrop Life Insur Co., 46:5-8, May 65.

Most of the reduction in perinatal mortality among white babies, and almost the entire decrease among nonwhites, is attributable to the downward trend in fetal mortality, probably reflecting the effect of improved prenatal and obstetrical care. A large proportion of early neonatal deaths occur among babies weighing 5½ pounds or less at birth, and further reduction in perinatal mortality hinges to a large extent on advances in methods of controlling premature labor. Research is needed on relation of maternal infections in pregnancy to congenital defects of infants and on possible effects of the newer drugs taken in early pregnancy. 2 tables. (Ed)

640. ANONYMOUS.
Reducing infant mortality: Suggested approaches.
JAMA 193:310-9, 26 Jul 65.

The report describes social factors in obstetrics, sociobiological relationships, age-parity patterns, socioeconomic status, maternal health factors, illegitimacy, prenatal care influences as they relate to infant mortality, and points out the need for identification of high risk patients and for high level care to be given them. Ways of combatting prematurity, the first ranking cause of neonatal deaths, are mentioned. Recommendations are given for evaluating an infant's status at birth and for collecting biological and demographic data to indicate where improved techniques can be applied. Present day standards for prenatal care are discussed, and identification is made of areas where further research is needed. A list of general recommendations for primary and secondary prevention is appended. 1 table. 3 figures. 42 references. (Ed)

641. ANONYMOUS.
The effects of labour on the foetus and the newborn.
WHO Chron 19:184-90, May 65.

The most common cause of death in babies born at or around full term, according to a survey of perinatal mortality in the United Kingdom, is intrapartum anoxia. The greatest opportunity for reducing perinatal mortality further, lies in tackling this problem along with that of cerebral and other trauma during birth. The report discusses conditions in which intrapartum anoxia and trauma occur. It describes the role of the placenta, the stress of labor upon the infant, abnormal pregnancy and labor, testing for normalcy of the infant at birth, metabolic reserves, oxygen consumption and the thermal environment, and hazards to the newborn. (Ed)

642. ABERNATHY, J. R., GREENBERG, B. G., DONNELLY, J. F.
Application of discriminant functions in perinatal death and survival.
Amer J Obstet Gynec 95:860-7, 15 Jul. 66.

Three functions were used to determine the most effective in discriminating between death and survival of an infant. Model A, containing 28 variables, was the most effective; Model B, containing only birth weight, gestation, and crown-heel length was almost as powerful;

Model C, containing the 25 variables of Model A not included in Model B, was the least effective. Further analysis of Model B revealed that birth weight was the most powerful and gestation the next most powerful. Birth weight alone was a better discriminator than gestation and length combined. Other variables found significant in discrimination included race, sex, pre-pregnancy weight of the mother, obstetric complications, placenta and cord conditions, and congenital malformations. 2 tables. 2 figures. 11 references. (AEd)

643. ANDERSON, U. M., JENSS, R., MOSHER, W. E.
High-risk groups–definition and identification.
New Eng J Med 273:308-13, 5 Aug 65.

A geographical "core" area of high risk was identified by analysis of sections of the city of Buffalo according to 5 statistical items (mortality of infants, perinatal death rate, prematurity, pregnancy complications, high birth rate). Identification was confirmed by use of other selected data. Then, by itemizing the same characteristics for each ward in the core area, the existence of subgroups within it was demonstrated. These subgroups are characterized by racial, social, cultural, educational, and ethnic differences, as well as differences in morbidity and mortality. 8 tables. 1 map. 10 references. (Ed)

644. ANTELL, G. J.
The perinatal mortality problem in Florida. A possible solution.
J Florida Med Ass 54:231-7, Mar 67.

Florida's neonatal mortality rate has been consistently higher than the average for the U.S. over 15 years. The reason is the high perinatal mortality rate (PNMR) of the nonwhite race within the state. Maps are presented depicting the PNMR in the various counties. The Maternity and Infant Care Project, authorized by the Congress in 1963, offers hope to "high risk" indigent pregnant women and their offspring. Of 16 counties, however, with nonwhite PNMR'S higher than 60, only 2 are included in these grants so far. Under Title V of the Social Security Act and Title XIX of the Medicare Law, additional federal funds are available for medical aid to indigent maternal and infant patients. 6 figures. Maps. (AEd)

645. ARMSTRONG, A.
Infant mortality–some possible determinants.
Canad J Public Health 57:263-8, Jun 66.

A relationship might exist between infant mortality, income, and health services. To test this hypothesis, a curve was fitted to data for 40 countries, and an equation relating the infant mortality rate to per capita GNP and the ratio of hospital beds per 10,000 population was derived. The regression analysis demonstrates an existing association which suggests circumstances reflected by income and the supply of hospital beds as determinants of the infant mortality rate. 3 tables. 3 references. (AEd)

646. BACKER, J. E., AAGENAES, O.
Infant mortality problems in Norway.
Vital and Health Statistics. Series 3, No. 8, 67.

Statistics on changes in infant and perinatal mortality rates in Norway since 1900. Analysis focuses on the sizable decreases in the late neonatal (7-27 days) and postneonatal (28 days-11 months) mortality rates, and the considerably smaller decrease in perinatal (stillbirths and under 7 days) mortality rate. Changes in parameters of infant loss and their influence on infant and perinatal mortality trends are discussed. Mortality among high-risk infants is analyzed. The population trend, socioeconomic situation, provisions for maternal and child welfare, medical care of infants, and vital statistics system are described. Immaturity is at present the biggest problem in connection with perinatal and late neonatal mortality in Norway, and any future decline of any importance will depend on prevention and control of this condition. 15 tables. (AA)

760. BANIK, N. D., KRISHNA, R., MANE, S. I.
Longitudinal study of morbidity and mortality pattern of children in Delhi during the first two years of life: A review of 1,000 children.
Indian J Med Res 55:504-12, May 67.

647. BENTLEY, H. P. JR.
Neonatal mortality.
J Med Ass Alabama 36:377-81, Oct 66.

Alabama has the second highest neonatal mortality in the U.S. Discussion is concerned with the primary problems associated with neonatal mortality and definite and proposed progressive steps the physicians of the State might take. 4 tables. (AEd)

648. BONHAM, D. G.
Perinatal mortality.
Aust New Zeal J Obstet Gynaec 5:183-5, Aug 65.

Perinatal mortality in England and Wales is studied from various viewpoints such as: type of mother (physical measurements), place of confinement, age, length of gestation, past reproductive performances, time of stillbirths and neonatal deaths. Asphyxia or hypoxia in labor is found to be an important cause of death. 3 references. (Ed)

314. BRANOWITZER, Z.
Dynamics of vital statistics in the population of Poland and in certain European countries in 1950-1960.
Zdrow Publiczne 4:467-77, Apr 67. (POL)

649. BRAZOZOWSKA, I.
Analysis of perinatal mortality in hospitals and maternity wards as well as under the supervision of rural and urban midwives in 1961-1964. (according to data from 17 regions and 5 separate cities).
Zdrow Publiczne 6:353-63, Jun 66. (POL)

Perinatal mortality, 1961-64, decreased in hospitals and among urban women delivered by midwives but not among rural women delivered by midwives. Important causes of mortality are low birth weight (1,001-2,500 gms.), developmental defects, complications of the placenta and umbilical cord, and labor trauma. Prevention of premature labor or early hospitalization of women suspected of premature labor is needed to reduce mortality. 9 tables. (AEd)

650. BUTLER, N. R.
Causes and prevention of perinatal mortality.
WHO Chron 21:43-61, Feb 67.

This article discusses the multiple causes of perinatal mortality: intrapartum asphyxia, macerated fetuses, lethal congenital malformations, cerebral birth trauma and prematurity, and infection and rhesus incompatibility. Also discussed are factors influencing perinatal mortality such as socioeconomic condition of mother and advanced age, short stature, parity, as well as urban-rural differences. It is important to study newborns that survive with a permanent disability. A prerequisite to the reduction of perinatal mortality is to identify the obstetric and sociological association of perinatal deaths. 3 tables. (Ed)

651. CHASE, H. C.
International comparison of perinatal and infant mortality: The United States and six western European countries.
Vital and Health Statistics, Series 3, No. 6, 67.

Perinatal and infant mortality in the U.S. is compared with that in Denmark, England and Wales, the Netherlands, Norway, Scotland, and Sweden. In 1964, the infant mortality rate for the U.S. was highest among the 7 countries, and 75% higher than the lowest, Sweden. When the comparison was limited to white infants in the U.S., the rate was 52% higher than for Sweden. Clearly, the higher rate in this country cannot be attributed entirely to nonwhite infants. Text tables. (AEd)

652. CHASE, H. C.
The current status of fetal death registration in the United States.
Amer J Public Health 56:1734-44, Oct. 66.

Limitations of fetal death data are discussed and possible improvements in registration indicated. Impending revisions of standard certificates make such changes particularly pertinent. Coincidental with these revisions, all states will be reviewing their birth and fetal death certificates as well as others. Educational processes that attend such revisions present unusual opportunities to press for improved registration on all fronts. The decade ahead offers an opportunity to improve fetal death registration so that it can take its place with live birth and death registrations as a source of data for one important health problem. 4 tables. 3 figures. 11 references. (AEd)

653. CHENOWETH, A. D.
Perinatal mortality in the United States.
J Amer Osteopath Ass 64:372-80, Dec 64.

Statistics and comments on trends relating to infant mortality. Reproductive failure (including neonatal, perinatal, and antenatal deaths) ranks among the top ten causes of death in the U.S. In 1961, nine countries had lower infant mortality rates. Prematurity (low birth weight) contributes to high perinatal mortality more than any other single condition. There is a close relationship between birth weight and social and economic status, and good prenatal care is still the keystone in the prevention of perinatal mortality. 4 figures. 1 table. References. (Ed)

654. COMSTOCK, G. W., LUNDIN, F. E., JR.
Parental smoking and perinatal mortality.
Amer J Obstet Gynec 98:708-18, 1 Jul 67.

All perinatal deaths and a sample of live births over 10 years in Washington County, Maryland, were matched against the records of a special census taken in 1963. Epidemiologic characteristics and perinatal mortality rates were compared for mothers by smoking history during pregnancy. Infants of nonsmoking mothers were approximately 200g heavier at birth than infants of smoking mothers. The amount smoked by the mother was inversely correlated with birth weight. Stillbirth rates were similar for nonsmoking and smoking mothers. Maternal smoking was associated with increased risk of neonatal mortality and early childhood mortality only where the father was poorly educated. It was concluded that maternal smoking was related to mortality of the child by means of a common association with some other factor, possibly something related to adequacy of prenatal care and environment. 9 tables. 17 references. (AEd)

655. COOKSON, I.
Perinatal mortality, the survey and the general practitioner.
J Coll Gen Pract 8:205-22, Sep 64

The evidence provided by the British Perinatal Mortality Surveys confirms that mature and premature births must be assessed separately. Premature labor is the principal abnormality associated with perinatal mortality. Mature cases delivered within two weeks of term are a low-risk group in which the effects of parity less than four, age less than 35 years, social class, and bleeding before the 28th week of pregnancy are so small that they can be disregarded. The perinatal mortality rate for deliveries at home or in general practitioner units is low but might be further reduced by specialist supervision for more cases of premature labor, breech presentation, severe anemia and "small for dates" babies. Postponement of forceps delivery until fetal distress is evident should be avoided and local anesthesia should be used more frequently in general practice obstetrics. 18 figures. References. (AEd)

656. CURRAN, E. W.
Report of the international conference on the perinatal and infant mortality problem of the United States.
Vital and Health Statistics. Series 4, No. 3, Jun 66.

Major findings of studies presented at the conference by investigators from Denmark, England and Wales, the Netherlands, Norway, Scotland, and the U.S. are summarized. Infant mortality rates have decreased impressively during the past 30 years. However, in the 1950's rates of decline for four of the countries including the U.S. slowed down. All investigators described increasing use of hospitals for delivery. There has been an increasing incidence of low birth weight infants in the U.S. In countries where some measure of socioeconomic level is available, infant mortality is higher in the lower classes, and the mortality differential between the upper and lower classes is increasing. Text tables. (AA)

657. DONABEDIAN, A., ROSENFELD, L. S., SOUTHERN, E.M.
Infant mortality and socioeconomic status in a metropolian community.
Pub Health Rep 80:1083-94, Dec 65.

Findings obtained from a study made in 90 census tracts of Metropolitan Boston, using 1950 census data, showed a 5-fold difference in perinatal mortality between census tracts with the highest and the lowest socioeconomic status, and a sharp geographic localization of areas of highest mortality. In tracts with highest mortality, component segments of infant mortality were preportionately related to one another in a pattern similar to that in partially developed countries today and in the U.S. several decades ago. All segments of mortality decreased as socioeconomic status improved (except for an even level for infants under 1 week old). Misclassification of stillbirths is the least likely explanation and the deferral of perinatal deaths among high socioeconomic groups the most likely explanation of the findings. 5 tables. 37 references. 5 figures. (AEd)

658. DONALDSON, R. S., KOHL, S. G.
Perinatal mortality in twins by sex.
Amer J Public Health 55:1411-8, Sep 65.

Birth and mortality data indicate that from the moment of conception, the male is at a physical disadvantage compared with the female. The present study analyzes perinatal mortality by sex, using twin gestations in which the two infants were of different sex. All are hospital data. Each "outcome" was: (a) discharged alive, (b) a fetal death, or (c) a neonatal death (i.e. born alive but dying before 28 days of age). This study and a classification prepared of all legitimate twin births for England and Wales in 1949-1950 give the same result for unlike sex, unlike outcome sets of twins. The male suffers a higher neonatal death rate but is not subjected to a higher fetal death rate than his female companion in the same pregnancy. 9 tables. 9 references. (AEd)

659. DOUGLAS, C. A.
Infant and perinatal mortality in Scotland.
Vital and Health Statistics, Series 3, No. 5, 66.

Statistics on mortality associated with birth in Scotland with emphasis on decreases in maternal and infant mortality since 1930 and in stillbirth mortality since 1939. Improvement in infant mortality was chiefly in the postneonatal period; little change has been observed in the first day of life. The greatest progress has been in the reduction in mortality due to communicable diseases. Prematurity is now 1/8 the rate in 1931-35. Stillbirths and mortality due to congenital malformations, birth injury or asphyxia have shown no improvement since 1931-35. Declines in mortality have been greater for the higher social classes. Mortality from respiratory and digestive diseases is relatively rare in children of more prosperous or better educated families. 13 tables. (AEd)

660. EMERY, J. L.
Evidence from bone growth that most of the infants dying in the neonatal period had been ill before birth.
Acta Paediat Scand Suppl 172:55-9, 67.

A survey of pattern of growth, as revealed by structure of the costochondial junction, suggests that the great majority of infants dying in the neonatal period had intrauterine disease antedating labor. This involves approximately 60% of premature birth deaths and around 75% of perinatal deaths at term. 1 table. 2 figures. 9 references. (AA)

661. ENKE, H., WERNER, K.
On the effect of socioeconomic structure on infant mortality.
Z Ges Hyg 10:472-82, Jul 64. (GER)

Districts in Germany were described as urban or rural on the basis of proportion employed in agriculture, density of the population, and living style. No correlation was found between degree of urbanization and the infant mortality rate. 5 tables. 5 figures. 6 references. (AEd)

662. ERHARDT, C. L., JOSHI, G. B., NELSON, F. G.
Influence of weight and gestation on perinatal and neonatal mortality by ethnic group.
Amer J Public Health 54:1841-55, Nov 64.

Perinatal and neonatal losses are analyzed by gestation, birth weight, and ethnic group among almost 650,000 deliveries in New York City, 1958-1961. Both perinatal and neonatal loss rates are, in general, lower among nonwhites than among whites at weights less than 3,000gs and gestations less than 35 weeks. Nonwhites have lower mean duration of pregnancy than whites for each birth weight interval. However, nonwhites weigh more on the average than do whites at gestations below 30 weeks but weigh less at 30 weeks or more. The lower neonatal loss rate among nonwhites at low birth weights does not appear to be a function of longer duration of pregnancy. Research is needed in the comparative development of fetuses of different ethnic groups to determine whether, in fact, there is a difference in their rates of development. 5 tables. 9 figures. (AEd)

663. ESCOBAR SOTO, J., GOMEZ RUEDA, A., QUINTERO JARAMILLO, C. A.
Perinatal mortality.
Rev Colombia Obstet Ginec 15:295-317, Jul-Aug 64. (SP)

Study of perinatal mortality in the Hospital Universitario del Valle (in Colombia) for 1962, to establish factors and causes of death. The influence of medical factors, age, and parity on the incidence of mortality was clearly observed. It is believed that 50% of the deaths studied could have been avoided through adequate diagnosis during pregnancy, and that a high percentage of prematurity could have been avoided. Among the medical causes of perinatal mortality, maternal conditions account for 30%, and complications of labor and birth for 34%. The rest are divided among pulmonary conditions

of the newborn (23%), malformations (2%), and unknown causes (11%). Recommendations are given for finding solutions for factors and causes of perinatal mortality. 19 tables. 1 figure. 21 references. (AEd)

664. FAIRWEATHER, D. V., RUSSELL, J. K., ANDERSON, G. S.
Perinatal mortality in Newcastle upon Tyne 1960-62.
Lancet 1:140-2, 15 Jan 66.

Perinatal mortality material for the first 3 years of the Newcastle City maternity survey is presented under pathological and clinicopathological headings to indicate the general pattern of findings. Reference is made to the group of cases for which no satisfactory explanation of cause of death is evident (18% of the total). 3 tables. 3 references. (AA)

665. FELDSTEIN, M. S.
A method of evaluating perinatal mortality risk.
Brit J Prev Soc Med 19:135-9, Jul 65.

Report on the development of a multiple regression method for evaluating perinatal mortality risks and identifying cases most likely to benefit from intensive antenatal care or hospital delivery. Data were collected by the Perinatal Mortality Study (Great Britain), for 16,994 single births, some 98% of all births during one week in March 1958. Perinatal deaths of babies born during March-May were also recorded. Certain types of perinatal deaths are more likely than others to be prevented by hospital delivery, e.g. contrast intrapartum asphyxia and congenital malformation. Similarly, better antenatal care rather than mere hospital booking is appropriate for cases with high risk of antepartum death. Specific models will be developed to assess the risk of perinatal mortality at different stages and from various causes. The doctor will be able to plan a patient's care on the basis of a *set* of risk values. If possible, this will be supplemented by measures of the extent to which risk is decreased by hospital delivery. 3 tables. 7 references. (Ed)

666. FORFAR, J. O.
Prospect and practice in child health.
Lancet 1:615-9, 20 Mar 65.

Although over the past 3 decades the infant mortality rate in Scotland has fallen significantly–from 86 per 1,000 live births in 1932 to 26 in 1963–the figures cannot be viewed with complacency. Scotland is only tenth among the 22 countries whose rates are compared for 1962. Accounting for childhood deaths are: neonatal asphyxia, permaturity and birth injury, 37%; congenital abnormalities, 19%; infections, 21%; accidents, 12%; malignant neoplasms, 3%; neurological disorders, 3%; anemias, 2%; other causes, 3%. Every day in Scotland about 10 children die, 317 are admitted to hospitals, 667 attend hospital outpatient departments, and 11,450 are seen by their general practitioners. 1 table. 13 figures. References. (AEd)

667. FUJIKURA, T., FROEHLICH, L. A.
The influence of race and other factors on pulmonary hyaline membranes. A report from the collaborative study of cerebral palsy.
Amer J Obstet Gynec 95:572-8, 15 Jun 66.

Pulmonary sections of 434 neonatal deaths out of 27,407 single live births showed hyaline membranes (HM). The incidence of HM was higher in Negroes than whites. Over 80% of the HMs occurred in infants of birth weight under 2,500 gms. These deaths occurred within 24 hours of birth. HM groups of white infants survived longer than Negro infants. The racial difference in HM incidence and mortality is related to birth weight. More Negro than white infants weighed under 2,500 gms at birth and heavier infants with HM survive longer than lighter infants. Pneumonia was seen in 33 of the HM cases. HM cases with pulmonary edema were evenly distributed between those slight and those with moderate and marked membranes. 6 tables. 9 references. (Ed)

668. FURUSHO, T.
Relationship of stature to infertility, miscarriages and fetal deaths. A preliminary report.
Jap J Hum Genet 9:100-9, Jun 64. (JAP)

Relationship between stature of 533 couples who had cohabitated for more than 5-10 years and incidence of sterility as well as of miscarriage analyzed from data from a village in Japan. No statistically significant differences were observed between stature and rates of sterility or incidence of spontaneous abortions or stillbirths. Significantly related to incidence of miscarriage were wife's age at delivery, and differences in the couples' ages. The relationship between stature and socioeconomic status was considered. 8 tables. 11 references. (Ed)

669. GAROT, L.
The principal causes of perinatal mortality.
Bull Soc Roy Belg Gynec Obstet 36:265-80, 66.

A study was made of 500 cases of perinatal deaths. Immediate causes of death in order of frequency were anoxia, malformations, infection, uterine trauma, isoimmunization, and hyaline membrane disorders. Secondary causes were environmental conditions affecting prematurities. In 5%, general sanitation, inadequate prenatal care, and unsatisfactory obstetric care were to blame. In more than 10%, socioeconomic factors intervened. Of 100 deaths, 12 were certainly and 47 probably avoidable. (AEd)

670. GENZ, H.
Directed campaign against infant mortality during the 1st week of life.
Geburtsh Frauenheilk 24:882-9, Oct 64. (GER)

In 1961, 20,344 infants died in the first week of life in the Federal Republic of Germany and West Berlin, representing 2/3 of all infant mortality. This neonatal mortality has not been substantially reduced over the last 50 years. Clinical and post mortem diagnoses of 326 cases from West Berlin were studied. Necropsy reports are seen as the only useful source of information for the study of neonatal mortality. Suggestions are made for the establishment of regional committees to regularly review neonatal deaths. 2 tables. 1 figure. 12 references. (AEd)

671. GIBBS, C. E., MISENHIMER, H. R.
Perinatal mortality review.
Texas J Med 61:39-43, Jan 65.

Presentation of 5-year perinatal mortality statistics and relevant discussions from conferences on perinatal morbidity and mortality held at Lackland Air Force Base, Texas, bimonthly, 1958-1962. Discussions were designed

to establish cause of death, corrective factors, and preventability of death. Article includes tabulations of causes of death, fetal weights, coexistent maternal diseases, and contributing factors in preventable deaths. The authors conclude that: as improvement occurs in the care and management of the remediable conditions, the respiratory distress syndrome is responsible for an ever-increasing proportion of perinatal losses. 7 tables. 1 figure. References. (AEd)

672. GITTELSOHN, A. M., MILHAM, S., JR.
Observations on twinning in New York State.
Brit J Prev Soc Med 19:8-17, Jan 65.

Birth records of 21,128 twin pairs, born 1950-60 in upstate New York, are analyzed. Perinatal mortality of monozygotic twins is greater than that of dizygotic twins, and the mortality of males is greater than that of females other factors being equal. Males in monozygotic pairs have the poorest survivorship; females in dizygotic pairs the best. For birth weights less than 2,500 g., survivorship of twins is better than that of single births. For birth weights greater than 2,500 g., single births have better survivorship than twins. Birth weight disparity between members of a twin pair along with weight itself has an important effect on survivorship. 7 tables. 7 figures. References. (AEd)

673. GOLD, E. M.
Observation on abortion.
World Med J 13:76-8, May-Jun 66.

Statistics are studied for 'therapeutic abortion' in New York City, 1943-1962. The increasing importance of criminal abortion as a cause of puerperal mortality, is noted coincident with a declining incidence of therapeutic abortion. The incidence of therapeutic abortion is related to ethnic group and economic circumstances. It seems that this pattern exists in other countries, and there has been growing public pressure in the U.S. to liberalize abortion flows. 1 figure. 3 references. (AEd)

674. GOLD, E. M., ERHARDT, C. L., JACOBZINER, H.
Therapeutic abortions in New York City: A 20-year review.
Amer J Public Health 55:964-72, Jul 65.

Although incidence of therapeutic abortions, New York City, 1943-1962, exhibits a downward trend, there is a high rate of abortion deaths among nonwhite and Puerto Rican women. It is urged that health departments examine such problems and take appropriate action. 9 tables. 11 references. (AEd)

675. GROUNDS, J. G.
Child mortality under six years of age in government hospitals in Kenya.
E Afr Med J 41:473-94, Oct 64.

An analysis of causes of death of children grouped as neonatal, infant, and child in the government hospitals in each main region of Kenya. It was concluded that the death of children under 6 years of age in Kenya represent about 60-70% of all deaths at all ages. In the neonatal group, prematurity, tetanus, and respiratory tract infections are the most important. Among infants and children, respiratory tract infection was the most important cause of death. In all 3 groups, gastroenteritis, malnutrition, and malaria, although not always in the same order or causing the same proportion of deaths, were next on the list of causes. 7 tables. 7 references. (AEd)

676. GROUNDS, J. G.
Mortality and wastage rates for African children in Kenya.
E Afr Med J 41:333-43, Jul 64.

Estimates of infant mortality among African children in Kenya. Considerable variation exists in these rates, reflecting socio-medico-economic differences of the people and the state of development of health services in the different districts. Although infant mortality rates around 200 per 1,000 are common, substantial portions of the population in the better developed areas have rates of just over 100 which must help bring the overall figure down. The average infant mortality rate for Kenya might be about 160-170. Probably about 1/3 of all babies die before reaching adolescence. Evidence suggests that infant mortality of less than 100 for the majority of the population could be attained in the next decade. 4 tables. References. (AEd)

677. GROUNDS, J. G.
Mortality of children under six years old in Kenya with reference to contributory causes, especially malnutrition.
J Trop Med Hyg 67:257-9, Oct 64.

Primary causes of death of 243 children under age 6 in 15 hospitals in Kenya during 1 month in 1963 are listed in order of importance. 47% of all children who died were suffering from malnutrition at the time of admission to hospital for their terminal illness. There is a close association between deaths from gastroenteritis and malnutrition. Multiple pathology is common. 2/5 of all the children died in their first year and 3/4 in their first 2 years of life. 2 tables. References. (AEd)

678. GURALNICK, L., WINTER, E. D.
A note on cohort infant mortality rates.
Pub Health Rep 80:692-4, Aug 65.

The infant mortality rate is the number of deaths under 1 year in a given period divided by the number of live births in the same period per 1,000 or per 100,000 live births. But some deaths under 1 year in any interval are of babies born in an earlier period who are not represented in the denominator. To provide a better measure of the risk of death of infants, a number of adjustments have been devised. Allocation of each death to the correct cohort of births requires knowledge of the month of birth for each child, information not generally tabulated for the U.S. Rates for the cohort of births in the U.S. for each month, 1940-1961, are shown. The high proportion of deaths under 28 days explains the close similarity between the annual cohort rates and the adjusted rates. Cohort rates do not replace calendar infant mortality rates but serve as an additional method of analyzing infant mortality. 2 tables. 4 references. (AEd)

679. HAMMOUD, E. I.
Studies in fetal and infant mortality. 1. A methodological approach to the definition of perinatal mortality.
Amer J Public Health 55:1012-23, Jul 65.

Material derived from published U.S. vital statistics and census data for the purpose of studying interaction between environmental and biological groups of factors influencing mortality during the continuum of fetal and infant life. Mortality at ages where biological factors are more important will be characterized by greater sex differences and less racial differences, smaller variability,

weaker correlation with the level of living, and less reduction with improvement of the environment by time. These are the characteristics of mortality during the neonatal period. Results show that the neonatal period (under 28 days) is not a homogeneous one. The part of mortality beyond the first week of life behaves in a way similar to mortality during the postneonatal period, while fetal and early neonatal mortality behave in another common way. The term "perinatal mortality" should, preferably, be limited to include only infant deaths during the first one or two weeks at most, beside fetal deaths. 3 tables. 17 references. Appendices. (AEd)

680. HAMMOUD, E. I.
Studies in fetal and infant mortality. II. Differentials in mortality by sex and race.
Amer J Pub Health 55:1152-63, Aug 65.

An attempt is made to explain the differences in fetal and infant death by sex and race. High infant mortality is usually accompanied by small sex differences and large race differences. As environment improves, sex differences increase while the differences by race diminish. The main factors underlying sex differences in mortality are not the same as those underlying differences by race. The difference in mortality by sex is most probably biological, while the higher mortality among nonwhites is most probably environmental. This does not negate the existence of a biological element in the race differences and an environmental difference between the sexes. 9 tables. 1 figure. 20 references. (AEd)

681. HARLEY, J. M.
Essential hypertension complicating pregnancy: Factors affecting the fetal mortality.
Proc Roy Soc Med 59:835-8, Sep 66.

An investigation into the effect of various factors on fetal mortality in patients whose pregnancies were complicated by essential hypertension. Using 3 series of such patients, the effects of age, parity, initial diastolic pressure, and previous obstetric history were considered. Detailed comparisons are described, but no clear decision is reached. 3 tables. 10 references. (AEd)

682. HART, P. G.
Perinatal mortality of twins.
Nederl T Verlosk 67:1-25, Feb 67. (DUT)

218 women delivered twins at the Utrecht University Clinic, Holland, 1949-1965. Perinatal mortality was 11.9% and mortality of the second twin was considerably higher than that of the first. Prematurity, difficult position or difficult presentation of the presented parts, artificial delivery and unfavorable intrauterine condition (toxicosis, degeneration of the placenta, third circulation, etc.) are the most important factors in these deaths. The interval between the birth of the first child and the second had little influence on measures of asphyxia or perinatal mortality of the second child. 17 tables. 41 references. (AEd)

683. HARTMAN, E. E., SAYLES, E. B.
Some reflections on births and infant deaths among the low socioeconomic groups.
Minn Med 48:1711-8, Dec 65.

Data were collected and analyzed from 1960 census tract material and from birth and infant death records for maternity patients at Minneapolis General Hospital in 1962. Census tracts with low socioeconomic conditions generally had a high incidence of prematurity and infant deaths, and of live births, illegitimacy, and fertility. 71% of expectant mothers who attended the prenatal clinic made their first visit in the last trimester of pregnancy. Of mothers who had no prenatal care, 4% had fetal deaths as compared to 0.7% of fetal deaths for those who had made one or more visits to the prenatal clinic. 2 tables. 3 maps. 7 references. (AEd)

684. HEINS, H. C., JR.
Perinatal mortality in Charleston, South Carolina.
J S Carolina Med Ass 62:181-7, May 66.

Perinatal deaths for a second consecutive 5-year period were studied in Charleston hospitals. Causes of perinatal mortality need to be identified because they must also be the causes of congenital handicaps in infants who do not die. Perinatal and maternal mortality rates are much higher in indigent patients. A reduction in perinatal mortality can occur with increased dissemination of knowledge of perinatal care to the indigent group. Autopsies should be performed whenever possible in cases of perinatal death. 20 tables. 14 references. (AEd)

685. HOBBS, M. S., ACHESON, E. D.
Perinatal mortality and the organization of obstetric services in the Oxford area in 1962.
Brit Med J 5486:499-505, 26 Feb 66.

Perinatal mortality for 5,893 single births in Oxford, 1962, is studied in relation to local organization of maternity services. 48% of the mothers had been booked for consultant care, 51% for care under general practitioners either at home or in GP maternity units, and a little under 1% had not been booked for any type of care. 57% of the highest risk group I, 58% of the medium risk group II, and 37% of the remainder had been booked for consultant care. For risk groups I and III, the perinatal mortality rate was higher in consultant than in GP booked cases, a situation which at least in part reflects selection of difficult cases for consultant care within these groups. Factors affecting the proportion of mothers booked for consultant care by risk group and availability of GP versus consultant units are discussed. 6 tables. 4 figures. 6 references. (Ed)

686. ILLSLEY, R.
Preventive medicine in the perinatal period. Early prediction of perinatal risk.
Proc Roy Soc Med 59:181-4, Mar 66.

The Perinatal Mortality Survey of Great Britain, 1958, demonstrates the potency of influences such as social class, height, physique, age, parity, and region of residence of a mother on the outcome of pregnancy. If the perinatal death rate is taken as 100 for Great Britain, the ratio is 58 among tall women in the Southern areas of Great Britain married to men in professional and managerial occupations and 153 among short women in the Midlands married to semi- or unskilled workers. The regional distribution of services does not coincide with needs as measured by perinatal mortality. 4 tables. 1 figure. 13 references. (AEd)

532. JAYANT, K.
Birth weight and survival: A hospital survey repeated after 15 years.
Ann Hum Genet 29:367-75, May 66.

592. JESPERSEN, C. S., LITTAUE, R. J., SAGILD, U.
Measles in pregnancy as a cause of stillbirth and malformations. A restrospective study in Greenland.
Ugeskr Laeg 128:1076-80, 15 Sep 66. (DAN)

687. JONASSEN, O.
Stillbirth rate and mortality in the 1st year of life and the light they throw on social conditions. An investigation from Finnmark.
T Norsk Laegeforen 84:1396-404, 15 Oct 64. (NOR)

No English summary.

535. KERNEK, C., OSTERUD, H., ANDERSON, B.
Patterns of prematurity in Oregon.
Northwest Med 65:639-42, Aug 66.

688. KINCAID, J.C.
Social pathology of foetal and infant loss.
Birt Med J 5441:1057-60, 17 Apr 65.

Social class differences in British stillbirth and infant mortality rates have shown little or no tendency to decrease in recent years, despite the overall decline in these rates of death. The Perinatal Mortality Survey of 1958 supplies evidence of fairly large social class differences in relevant factors which are specific to the antenatal period and the labor process, e.g., attendance at antenatal clinics, pre-nuptial conception rate, work during pregnancy. Certain long-term factors influence the outcome of pregnancy. That is *within* each social class there exist associations between patient's height, number of patient's own siblings, and reproductive outcome. The implications are discussed. 6 figures. References. (AEd)

689. KLAUBER, M. R., JACKSON, E. W.
Leukemia and neonatal death rates.
Lancet 1:1002-3, 6 May 67.

Data suggest a positive association between leukemia (at ages 0-4 years) and neonatal (under age 28 days) death rates at the hospital of birth. In California, hospitals with 100 or more live births in 1959 were studied. With the exception of maternal age, characteristics showing high neonatal mortality are opposite to those associated with high childhood leukemia risks, so a positive association between neonatal and leukemia death rates is surprising. 1 table. (Ed)

690. KLEIN, J.
Perinatal mortality in twin pregnancy.
Obstet Gynec 23:738-44, May 64.

Analysis of 523 sets of twins to ascertain which factors may influence the high perinatal mortality associated with plural pregnancies. Birth weight is the most significant single factor influencing survival of the twin fetus. In the presence of competent obstetric supervision and judgment, factors such as presentation, method of delivery, and time interval between delivery of first and second twin are of little consequence. 14 tables. References. (AEd)

691. KOZACZENKO, J.
Perinatal mortality of infants born to elderly primiparas.
Ginek Pol 37:639-43, Jun 66. (POL)

7,417 deliveries, 1958-1962, were studied with emphasis on perinatal mortality for "elderly" primiparas (over 30 years of age). Perinatal mortality was twice as high in primiparous women. The high rate was mainly due to stillbirths and neonatal deaths in premature deliveries. The proportion of stillbirths or unviable neonates was markedly higher in "elderly" primiparas than in younger ones. 3 tables. 14 references. (AEd)

692. KRYSZTOFOWICZ, I., LENC-KRUMHOLZ, A.
Evaluation of infant mortality in Poland in 1964.
Sante Publique (Bucur) 9:353-8, 66.

During the last 15 years, infant mortality in Poland has decreased by over 40%. Contributing to the decrease were declines in stillbirths, early neonatal mortality, and infant mortality during delivery. Of 25,000 deaths confirmed by a physician, 10,000 were diagnosed as caused by diseases of infancy, 4,800 by pneumonia, and 2,200 by diarrhea. Large decreases in deaths from pertussis and diphtheria were observed since 1963. 6 tables. (AEd)

693. KRYSZTOFOWICZ, I., LENC-KRUMHOLZ, A.
Evaluation of infant mortality in Poland in 1964.
Zdrow Publiczne 9:371-8, Sep 65. (POL)

Infant mortality showed further declines in 1964. More deaths are now confirmed by a physician and more occur in hospitals than before. However, still only 60% of infant deaths occurred in hospitals. The three leading causes of death are diseases of infancy, pneumonia, and infantile diarrhea. 6 tables. 1 figure. 8 references. (AEd)

694. KUBAT, K., STOLONA, O., SYROVATKA, A.
Infant mortality in Czechoslovakia following alteration of the definition of live-born infant. Some biological and social factors influencing infant mortality.
Cesk Pediat 21:832-40, Sep 66. (CZ)

In 1965, the definition of a live born infant was introduced according to WHO. Compared with 1964, the infant mortality increase in the CSSR of 3.9% was caused by the alterations of definitions in 2.7%, the genuine increase being 1.2%. Causes of infant mortality are discussed. Low birth weight still presents a very relevant problem. Analyzed are age, occupation, and status of the mother, and number of previous deliveries. 2 tables. 9 figures. 11 references. (AEd)

695. KUBAT, K., SYROVATKA, A., KUCERA, M.
Perinatal mortality in the Czechoslovakian SSR and conditions of fetal development.
Cesk Pediat 19:769-74, Sep 64. (CZ)

Analysis of 4,482 infant deaths in the CSSR in 1962 by biological and social factors. Perinatal mortality was higher for: (1) increased maternal age particularly after age 35, (2) illegitimacy, because of increased incidence of prematurity, (but, excluding prematurity, perinatal mortality was lower among illegitimate births probably because of the younger ages of unmarried mothers), (3) villages of less than 2000 inhabitants, and (4) women employed in agriculture. Maternal age is probably responsible for the last two findings. 7 tables. References. (AEd)

696. KUKLA, T.
Rate of decrease in infant mortality in Poland in 1955-1964 as compared with other European countries.
Zdrow Publiczne 1:115-9, Jan 67. (POL)

Rate of decrease in infant mortality in Poland was compared with 25 other European countries, years 1955-1964, using the 1955 rate as 100. The European countries were classified into 4 groups, using a modified scale of A. Arbelo. According to this scale, Poland belonged in the group of countries with a high index of infant mortality in 1964. Judging from this, the rate of decrease in infant mortality is one of the most rapid. Only the Soviet Union and Bulgaria showed a greater decrease while Finland equalled Poland. The slowest rate of decrease was in Albania, Norway, Greece and Great Britain. In Poland, the rate of decrease was regular and showed a particular drop since 1958. 4 tables. (AEd)

697. LANDTMAN, B., WALLGREN, E. I.
Infant mortality due to congenital malformations.
Ann Paediat Fenn 12:47-50, 66.

Infant mortality decreased from 2.0% (1961) to 1.7% (1964). Congenital malformations were the main cause of death in 20% of fatalities. Total mortality and mortality caused by malformations was higher for boys than for girls. Mortality due to malformations was 8 times higher for low birth weight infants (less than 2,500 g.). Structural anomalies, however, as the main cause of death were comparatively more common in the latter. No difference in infant or in congenital malformation mortality were noted between rural and urban groups. Both mortalities were higher for children born out of wedlock than for legitimate children. Infants with a poor socioeconomic background had a higher mortality than those with a better social condition. Most parameters studied were approximately the same for infants who died of congenital malformations and for infants who died from other causes. 6 tables. 25 references. (AA)

698. LENC-KRUMHOLZ, A.
Index of infant mortality and criteria of live birth.
Zdrow Publiczne 4:501-4, Apr 67. (POL)

Before 1962, Polish vital statistics contained no published definition of live births. In May 1962, an instruction was issued concerning the application of uniform definitions of live born, stillborn, and newborn who are unable to live. Calculation of new rates for 1957-62 show that the new criteria of live birth failed to seriously affect newborn mortality in the whole country. The difference between the old and new rates, in Poland for this period, ranged from 2.1% to 2.3%. However, the influence was most marked in those provinces with low newborn mortality. They ranged, in 1962, from 3.5% in the province of Katowice to 6.4% in Poznan and 6.7% in Warsaw. 1 table. (AEd)

699. LUQUE, P. L., WELLER, J., FUNES LASTRA, P.
Social aspects of infant morbidity-mortality in the Argentine Republic. Statistics.
Rev Med Cordoba 51:171-87, Jul-Sep 63. (SP)

Study of infant mortality and morbidity in Argentina. Prematurity is the principal cause of neonatal mortality, and digestive disturbance the chief cause of late infant mortality. Factors significantly correlated with increased risk of infant mortality are general mortality, illiteracy, illegitimate birth, urbanization, lack of maternity beds, non-medical certification of death, and occupation of parents. Infant morbidity was studied only in Cordoba province where the principal diseases were respiratory followed by digestive, then congenital malformation. Malnutrition was prevalent among poor children. 6 tables. 14 figures. (AEd)

700. MAIER, W.
Infant mortality among live births of married and unmarried parents: causes of death, duration of life.
Arch Gynaek 199:468-74, 14 Apr 64. (GER)

Study of causes of infant mortality among births to married and unmarried parents. Rates of mortality due to prematurity, congenital malformations, and births injuries as well as the sex ratio at birth are similar for the two groups. The author considers that the "sensory sphere" is well developed in newborns so that emotional balance may be upset and body tolerance reduced by "wrong handling". Psychosomatic factors arising from wrong care by mothers or by "strange" persons–70% are born in hospitals–are important in infant mortality due to other causes. 2 tables. 5 references. (Ed)

701. MATSUO, M.
Trends in infant mortality.
J Jap Med Ass 56:239-43, 1 Aug 66. (JAP)

No English summary.

702. MATTHIESSEN, P. C., TROLLE, D., ZACHAU-CHRISTIANSEN, B.
Infant and perinatal mortality in Denmark.
Vital and Health Statistics. Series 3, No. 9, 67.

Statistics on changes in infant and perinatal mortality in Denmark since the early 1900's. Analysis focuses on sizable decreases in late neonatal and postneonatal mortality, compared with smaller decreases in perinatal mortality. Changes in parameters of infant and perinatal mortality trends are discussed. Risk factors associated with infant mortality are further analyzed by an obstetrician and by a pediatrician. Changes in the structure of population, the socioeconomic situation, provisions for maternal and child care, and the Danish health and vital statistics systems are described. Prematurity contributes heavily to perinatal and infant mortality and future declines of significance will depend upon control of low birth weight infants. 16 tables. (AA)

703. MCCARTHY, M. A.
Infant, fetal, and maternal mortality, U.S., 1963.
Vital and Health Statistics. Series 20, No. 3, Sep 66.

Infant mortality was 25.2 deaths per 1,000 live births and the risk was greater among nonwhite infants, males, and for the South. Prematurity, respiratory disorders, and congenital anomalies were among the leading causes of death. The fetal death ratio was 15.8 and the risk differed by sex and color as for infant mortality. Increased fetal death risk was associated with multiple births and increased birth order above the second. Maternal mortality was 4 times higher among nonwhite women than white and was highest in the South. Toxemia was the leading cause of maternal mortality. 27 tables. (AEd)

704. MELICHAR, V.
Analysis of mortality among premature newborn infant in the Czechoslovakian SSR in 1962.
Cesk Pediat 19:778-83, Sep 64. (CZ)

Mortality was subdivided according to birth weight. Total mortality was 13%. Analyses of cause and length of life of prematurely born infants who died involved data such as the time necessary to transport prematures to a specially equipped premature unit. Organizational, therapeutical, and preventive measures for further decrease of neonatal mortality in immature infants are emphasized. 2 tables. 2 figures. References. (AEd)

705. MORF, E., BRETSCHER, J.
Main anatomical findings concerning 1,061 perinatally deceased children.
Gynaecologia (Basel) 161:211-6, 1966. (GER)

No English summary.

706. MORIYAMA, I. M.
Infant mortality trends, U.S. and each state, 1930-1964.
Vital and Health Statistics. Series 20, No. 1, Nov 65.

Infant mortality for the past 15 years has been declining at 1/4 the rate of the 15 years before that. Although the rate for 1964 is the lowest ever recorded for the U.S., there is no indication of any further change in trend. The change in the rate of decline has occurred in practically every segment of the infant population in the U.S. Until 1958, the infant mortality rate for at least 12 states was declining or even showing a significant acceleration in the rate of decline. Recent experience shows that there has been a decrease in the rate of decline of the infant mortality rate for every one of these states except Mississippi and New Mexico. Figures. (AEd)

707. MORIYAMA, I. M.
Present status of infant mortality problem in the United States.
Amer J Public Health 56:623-5, Apr 66.

Significance of infant mortality as a public health problem, and questions raised concerning its evolution in recent years are presented in this review. Changes in trends and problems of comparison with other countries are discussed. (AA)

708. MULLER-RUDAT, D.
On mortality and infectious diseases in infancy.
Deutsch Gesundh 19:1054-8, Jun 64. (GER)

Analysis of causes of death of 9,077 infants, 1962, in the Institute for Social Hygiene, Berlin. A few infectious diseases (like toxoplasmosis, listeriosis, and cytomegalia) of early childhood accounted for more deaths than all the other infectious diseases combined. For certain infectious diseases (measles, chicken pox, the grippe), death rates were higher among children in nurseries and child-care centers before the onset of illness than among those who were cared for at home. 4 tables. 16 references. (Ed)

709. NAYLOR, A. F.
Ethnoracial comparisons of intraclass correlations and mean gestation times in spontaneous abortion and perinatal death. A report of the collaborative study of cerebral palsy.
Amer J Obstet Gynec 97:931-5, 1 Apr 67.

Analysis of variance of gestation times to occurrence of fetal death, recalled by women registered in the Collaborative Study on Cerebral Palsy, confirm literature reports that gestation times to fetal death tend to have different average values from woman to woman. Irrespective of whether gravidas are classified as Negro, Puerto Rican, or white, or whether deaths are spontaneous abortions or considered up through normal term, intraclass correlations between times of repeated fetal deaths are estimated to be on the order of 0.3. Negroes report the highest mean times to fetal death, followed by Puerto Ricans, and then by white woman. 3 tables. 8 references. (AA)

710. NEWCOMBE, H. B.
Environmental versus genetic interpretations of birth order effects.
Eugen Quart 12:90-101, Jun 65.

Infant and early child mortality increase with advancing birth order independent of maternal age. The large birth order effect for deaths beyond the first week of life is almost certainly environmentally caused. The smaller effect for stillbirths and early neonatal mortality might be largely due to maternal-fetal incompatibilities. Birth order does not apparently influence the risk of registerable handicaps, except for strabismus and certain other congenital malformations of the nervous system. 5 tables. 4 figures. 13 references. (AEd)

711. NOLD, B., STALLONES, R. A., REYNOLDS, W. E.
The social class gradient of perinatal mortality in dependents of military personnel.
Amer J Epidem 83:481-8, May 66.

Data are from 6 military hospitals in California, 1959, 1960, and 1961. Perinatal mortality rate increased with decreasing military rank of the husband, independent of maternal age or parity. Dependents in military hospitals generally receive the same high quality obstetric care irrespective of rank of husband. Differences in degrees of affluence associated with rank do not seem to explain the observation satisfactorily. Other, less well defined, factors which produce and maintain the phenomenon of social stratification may be related to physical fitness and affect the chances of survival of offspring. 6 tables. 10 references. Appendix. (AEd)

712. PELLER, S.
Proper delineation of the neonatal period in perinatal mortality.
Amer J Public Health 55:1005-11, Jul 65.

Data on fetal and infant mortality from 11 countries, collected by Shapiro and Moriyama, were regrouped and re-examined. Should the neonatal part of perinatal mortality be limited to the first postnatal week or, conforming to tradition, extend to four weeks? If statistical

analysis is to contribute to the solution of perinatal mortality, the neonatal period should be limited to the first postnatal week, and the designation "late neonatal mortality" should be abandoned. This limitation facilitates recognition and isolation of essential factors that are common to all countries, and are more uniform than those which determine mortality in the two subsequent periods of infancy. 4 tables. 2 figures. 6 references. (AEd)

713. POMERSKA, E.
Infant mortality in the last decennium in Poland.
Zdrow Publiczne 1:21-7, Jan 67. (POL)

In the last 10 years, a decrease of more than two-fold has been recorded in infant deaths due to infectious and respiratory tract diseases, and a nearly four-fold decrease in infant deaths due to diarrhea. A characteristic variability of infantile mortality was observed with regard to provinces and counties and also to age and causes. 2 tables. 4 figures. (AA)

714. PONTUCH, A., GAZAREK, F., DRAC, P.
Perinatal mortality in premature deliveries.
Cesk Gynek 29:459-66, Aug 64 (CZ)

Analysis of perinatal mortality in premature deliveries from national data for 1962. Perinatal mortality was 19% for premature infants (weighing less than 2,500 g.). The high mortality in prematures compared with infants born at term could not be explained by differences in mother's profession or age. Causes and prevention and management of premature labor are discussed. 5 tables. 14 references. (AEd)

715. REIMANN, G.
On the evolution of the neonatal mortality rate in the DDR.
Deutsch Gesundh 19:1654-9, 27 Aug 64. (GER)

Data include the changing infant mortality rate in the East German Republic, 1946-1961, and the effect upon infant mortality of each of the following: sex, legitimacy, age of the mother, birth in an institution, birth order, multiple birth, employed or housewife status of the mother. 14 tables. 4 figures. (Ed)

716. RENGGLI, I.
On the problem of perinatal mortality statistics concerning newborn infants during 1961-1963.
Gynaecologia (Basel) 158:249-303, 64.

Perinatal mortality is examined for 1961-1963 with special emphasis on prematurity. Sex, primi- and multiparas, birth weight, and cause of death are considered in detail. 31 tables. 13 figures. References. (AEd)

717. RODRIGUEZ ARGUELLES, J., URRUSTI SANZ, J., BRENA AQUINO, E.
Perinatal mortality.
Ginec Obstet Mex 19:177-92 May-Jun 64. (SP)

A study was made in a Mexico City hospital, 1961-1963, of 30,396 infant births, including 397 prenatal deaths and 440 neonatal deaths. Statistics are given for age at death, birth weight, length of gestation, age of mother, and birth order. Several causes of perinatal mortality are discussed and tabulated. 12% of the births were premature and 40% of the infants that died were premature. Means of reducing perinatal losses are enumerated. Tables. 15 references. (AEd)

718. ROSA, F., RESNICK, L.
Birth weight and perinatal mortality in the American Indian.
Amer J Obstet Gynec 91:972-6, Apr 65.

In recent years, vital data on American Indians have shown low perinatal mortality rates relative to high postneonatal mortality rates and low socioeconomic conditions. A tabulation based on 1,739 pregnancies in Indians in the North Central States and a special national tabulation of Indian birth weights indicate relatively high birth weights in the Indians. The data and conditions suggest that broader racial factors are significant in birth weight and perinatal mortality, in addition to the recognized associated environmental influences. Many of the possible bases for these racial differences remain to be explored. 3 tables. References. (AEd)

719. ROTHE, J.
Perinatal mortality in newborn infants in the German Democratic Republic during the years 1952-1961.
Z Ges Hyg 10:281-7, Apr 64. (GER)

In the GDR, perinatal mortality rate was reduced by 1/3, 1952-1961, coinciding with the enactment of the Law on the Protection of Mother and Child and on the Rights of Woman. Full utilization of available services would probably produce further reductions. However, since the proportion of stillbirths did not decline to the same extent as other infant mortality, this problem requires further effort. 6 tables. 35 references. (AEd)

720. SACKS, M., BAKER, T. H.
Spontaneous premature rupture of the membranes. A prospective study.
Amer J Obstet Gynec 97:888-93, 1 Apr. 67.

Spontaneous rupture of the membranes occurred in 415 of 6,209 deliveries (7%). In 75% of the cases, the latent period was less than 48 hours; in 3%, it was over 14 days. The latent period increases with the degree of prematurity. Perinatal mortality is determined primarily by the degree of prematurity and only slightly by the length of the latent period. Perinatal mortality is not increased in the mature infant. Maternal morbidity is increased, but the complications are generally not serious. 6 tables. 6 references. (AEd)

721. SARKANY, J.
Infant mortality in Hungary in 1963.
Orv Hetil 106:1457-60, 1 Aug 65. (HUN)

Hungary had in 1963 the lowest infant mortality rate it has ever had, 42.9 per 1,000 live births. The consistent improvement over 6-8 years was disrupted in 1962 when the mortality rate increased slightly but this was only a transient condition. 4 tables. (AEd)

722. SCHNEIDER, J.
Fetal wastage: a survey of unsuccessful pregnancy.
Univ Mich Med Gent J. 33:110-3, May-Jun 67.

The neonatal mortality rate in the U.S. is 17.9 per 1,000 live births and has changed little in the last 15 years. Marked racial disparities have persisted or increased; in 1964 the rate was 16.2 in the white population and 26.5 in the nonwhite. As pregnancy progresses to the neonatal period, fetal wastage is increasingly preventable. Low birth weight is the cause of much fetal wastage. Data are

given on incidenee of infant, neonatal, and fetal mortality, and low birth weight (per 100 births) in the U.S. 1950-1964, for whites and nonwhites. 2 tables. 21 references. (AEd)

723. SCHORR, R.
Sociological aspects of infant mortality.
Z Aerztl Fortbild (Jena) 58:1081-9, 1 Oct 64. (GER)

Statistics on infant mortality and related social and other factors, for pre-war Germany, and for the DDR, 1947-1962. Mortality from gastroenteritis is higher for infants of unwed mothers than for those of married mothers, indicating that social factors are still predominant in infant mortality. In one region, infant mortality was 20%. These data suggest a need for further and more qualified social workers to make house visits. 24 tables. 4 figures. (AEd)

724. SCURLETIS, T. D., SURLES, K., DONNELLY, J. F.
Trends in infant mortality in North Carolina, 1933-66.
N Carolina Med J 27:361-6, Aug 66.

Data obtained since 1959 show a leveling off or even a slightly downward trend in both neonatal and postneonatal deaths in both white and nonwhite raees, following a short period of increasing rates. Neonatal deaths among white infants since 1959 have declined slightly, and nonwhite deaths have leveled off. In the postneonatal period, infections have caused an increasing number of deaths since 1954 among white infants; however, this upward trend has leveled off since 1959. Reduction of the mortality from infections among nonwhite infants is needed. 1 table. 7 figures. 4 references. (AEd)

725. SHAPIRO, S., SCHLESINGER, E. R., NESBITT, R. E., JR.
Infant and perinatal mortality in the United States.
Vital and Health Statistics. Series 3, No. 4, 65.

Detailed statistics are provided on changes in infant and perinatal mortality since the early 1930's. Analysis focuses on lack of sizable decreases in these rates in the 1950's and on the current situation in white and nonwhite groups and in various geographic subdivisions. Statistics on fetal loss, congenital anomalies, and birth weight from special studies are given. Changes in parameters of infant loss that may explain the small decreases in this loss during the 1950's are considered, and differences in rates of change in the infant mortality rate among high-risk groups are analyzed. Presented also are ratios of general practitioners, obstetricians-gynecologists, pediatricians, nurses, and hospital beds to relevant segments of the population. Other factors, including obstetrical costs, health insurance, and maternal and child health programs, are discussed. 12 tables. (AEd)

726. SHAPIRO, S., UNGER, J.
Weight at birth and cause of death in the neonatal period, U.S., early 1950.
Vital and Health Statistics. Series 21, No. 6, Jul 65.

Statistics on neonatal mortality by age and cause according to weight at birth from vital records for infants born in the U.S. during the first 3 months of 1950. Almost 1/2 the deaths during the first 28 days of life occurred before the end of the first day. At each age of the neonatal period, the risk of dying was inversely related to the infant's weight (except at the highest weight). Immaturity unqualified was the principal cause of death for babies 2,500 grams or less. Congenital malformations ranked first above 2,500 grams. Neonatal mortality was higher for nonwhite than white infants at all ages and birth weights except in the first few days of life. Mortality among hospitalized births was lower than among nonhospitalized births for nonwhite infants except at the extreme weights. Underreporting and selectivity of poorer risk cases may account for higher mortality among hospitalized small immatures and heavy babies. Through most of the neonatal period, the risk of loss was substantially greater among males than females. 17 tables. (Ed)

727. SIEGEL, M., FUERST, H. T., PERESS, N. S.
Fetal mortality in maternal rubella. Results of a prospective study from 1957 to 1964.
Amer J Obstet Gynec 96:247-53, 15 Sep 66.

Increase in early fetal deaths and perinatal mortality was observed in a prospective study of 763 cases of maternal rubella in New York City, 1957-1964, inclusive. The increase appeared to be limited to cases with onset in the first trimester. Spontaneous fetal deaths accounted for 18% of the total fetal loss following rubella. An additional 82% were due to artificial termination of labor for therapeutic reasons. The combined fetal loss from spontaneous deaths and induced abortions was 74% of cases reported in the first trimester. There was no evidence of an increase in virulence of infection in the extensive epidemic of rubella in 1964 as measured by fetal mortality following maternal disease in recent years. 5 tables. 1 figure. 8 references. (AA)

728. SIEGEL, E., SCURLETIS, T. D., ABERNATHY, J. R.
Postneonatal deaths in North Carolina, 1959-1963.
N Carolina Med J 27:366-71, Aug 66.

North Carolina's failure to make substantial reductions in infant mortality, 1959-1963, is related largely to a relatively high postneonatal mortality. More than half of the postneonatal deaths were attributed to infections, principally influenza and pneumonia, gastroenteritis, and colitis. Other causes listed were, in order of decreasing frequency, congenital malformations, ill-defined and unknown causes, and accidents (excluding those related to motor vehicles). Postneonatal mortality was found to be highest among nonwhite infants, infants born to young mothers, and infants born to mothers of high parity. Low birth weight and illegitimacy were 2 other factors associated with high postneonatal mortality. 6 tables. 12 references. (AA)

729. STICKLE, G.
What priority, human life.
Amer J Public Health 55:1692-8, Nov 65.

In terms of future productive capacity, as measured by personal money income, infant deaths outrank all three of the major killers. The death of some 105,000 infants each year represents a loss to society of an estimated $17.2 billion in future income, which exceeds the comparable loss due to deaths from heart disease, cancer, and stroke, respectively, by 3%, 94% and 404%. The most fruitful approaches to the achievement of improved life expectancy have come, and will continue to come, from reduced mortality in infancy and childhood.

Competing claims for health resources for programs to reduce mortality need to be evaluated primarily in terms of the age selection of the causes of death under consideration. 1 table. 2 figures. 6 references. (AEd)

730. SYROVATKA, A., SRB, V., VOJTA, M.
Report on a survey of perinatal mortality during the period, 1956-1962.
Cesk Gynek 29:430-6, Aug 64. (CZ)

Perinatal mortality in the CSSR declined by 20% between 1955 and 1962. Differences have disappeared between the Czech and the Slovakian regions. Questionnaires for 4,482 deaths of infants born in hospitals were analyzed; 85% of the infants were autopsied. Asphyxia, malformations, pneumopathy, and intracranial hemorrhages were the major causes of death. 53% of women whose infants died had registered at prenatal clinics by the 4th month of pregnancy compared with 83% of other mothers. 5 tables. 3 figures. (AEd)

731. TROLLE, D.
Reduction of the perinatal mortality.
Danish Med Bull 13:147-50, Oct 66.

Data for 1959-1966 on causes of perinatal death for 11,666 infants weighing more than 2,500 g. at birth have been critically examined. 174 died during the perinatal period, (14.9 per 1,000 births). Pregnancy care and treatment have not been sufficiently utilized, since 1/3 of the perinatal deaths might very well have been avoided. Had this been the case the perinatal mortality would have been 10.1 per 1,000 births. 2 tables. 1 figure. 5 references. (Ed)

732. VIGUIE, M., MASSE, N., DAMIANI, P.
Study of the development of infant mortality in the course of the last few years. Suggestions apropos of measures capable of permitting new progress.
Pediatrie 19:869-90, Oct-Nov 64. (FR)

Statistics on infant mortality for France, 1955-62. Rates are given by age of infant at death, cause of death, father's occupation, and region within France. Some international comparisons are made. The decline in the reduction of infant mortality in recent years is discussed and suggestions made for organization for improved infant care and further research into causes of death. Tables. 8 graphs. (Ed)

733. VOJTA, M.
Stillbirth in the Czechoslovakian SSR in 1962.
Cesk Gynek 29:452-8, Aug 64. (CZ)

Stillbirths as a proportion of all infant mortality declined from 12% in 1956 to 9% in 1962. The proportion is 4 times higher for mothers over age 35 than for mothers under age 25. 52% of stillbirths in 1962 were male. Causes of death are discussed. 5 tables. 3 figures. (AEd)

734. VOJTA, M., SYROVATKA, A.
Current viewpoints on the development of changes in perinatal mortality in Czechoslovakia.
Cesk Zdrav 12:432-41, Sep 64. (CZ)

Analysis of 4,482 infant deaths in the CSSR in 1962. 96% of all births occurred in hospitals, and the increase in such hospitalization plus the increase in the percent of mothers under age 25 (53% of the mothers in 1962) probably accounts for the decrease in perinatal mortality observed in the CSSR since 1955. Social factors, including legitimacy rates and urban-rural residence, did not have a marked effect on perinatal mortality. Causes of death are analyzed, as well as prenatal care. 4 tables. 5 figures. References. (AEd)

735. WILKERSON, L. R., DONNELLY, J. F., ABERNATHY, J. A.
Perinatal mortality and premature births among pregnancies complicated by threatened abortion.
Amer J Obstet Gynec 96:64-72, 1 Sep 66.

61,137 deliveries, including 2,353 perinatal deaths, 1954-1964, were studied. The incidence of threatened abortion with pregnancies subsequently carrying to viability was 1.3%. The perinatal mortality rate was 4 times greater and the incidence of prematurity 2½ times greater in patients who experienced threatened abortion than in those who did not. Certain fetal, maternal, and environmental factors were considered relative to their importance in the increased perinatal mortality and prematurity associated with threatened abortion. 8 tables. 9 references. (AEd)

736. WOOLF, C. M.
Stillbirths and parental age.
Obstet Gynec 26:1-8, Jul 65.

Stillbirths in Arizona, 1958-1961, were analyzed by a covariance method to determine if parental age effects could be detected. Stillbirths were selected where the cause of death was fetal in origin, ill-defined, or unspecified. Results demonstrate an association between stillbirths in certain coded groups and increased maternal and paternal age. Increased paternal age is observed to be of etiologic importance for stillbirths coded as ill-defined cause of death. Since certain congenital malformation and stillbirth rates increase with the age of the father, independently of the correlation between parental ages, it is unfortunate that the father's age is not included in, or compiled from, any vital statistics and obstetrics records in the U.S. at the present time. 8 tables. 10 references. (AEd)

737. WRANNE, L.
Early neonatal deaths from hyaline membrane syndrome and allied disorders.
Cesk Pediat 20:310-2, Mar 65.

Study of 11,720 live born infants in a hospital in Uppsala, Sweden, 1958-1962, revealed an incidence of low birth weight (2,500gms) of 5%. In the weight groups 0-1,000gms, 1,000-1,500gms, 1,501-2,000gms and 2,000-2,500gms, the first week mortality was 95, 62, 23, and 6%, respectively. 53, 24, 9, and 3% respectively of live born infants in these weight groups died from hyaline membrane disease, intraventricular brain hemorrhage, or pulmonary atelectasis without other contributory cause of death. The infants were also classified by birth weight and gestational age. The mortality from the diseases just mentioned was lower among infants that had considerably lower birth weights than expected from gestational age. Both birth weight and gestational age should be revealed in infant mortality statistics. 1 table. 2 figures. 2 references. (AEd)

738. YAZBAK, F. E., HOLDEN, R. H.
Birth order of twins. Apgar score, and perinatal mortality. Second twin has higher mortality and lower Apgar score (numerical rating of condition) than first twin.
Rhode Island Med J 49:595-7, Oct 66.

226 pairs of twins from the National Collaboration Study (in which at least one twin was live born) were compared as to their perinatal mortality and Apgar scores. The results tend to confirm those of previous studies which suggest a higher mortality for the second twin, both for stillbirths and neonatal deaths in the first 24 hours. They also strongly indicate that the first twin of a pair is more likely to obtain a higher Apgar score than the second twin. The causes and effects to this advantage remain to be investigated. 10 tables. 10 references. (AA)

F. SUDDEN DEATH

739. ANONYMOUS.
Cot deaths.
Brit Med J 5489:689-690, 19 Mar 66.

Although infant morality is declining, about 1,090 infants (3-6 months of age) died unexpectedly in England and Wales in 1965. More cot deaths occur among infants of young, poor, unwed mothers than among older, well-to-do, married mothers. A higher incidence of cot deaths is found among twins and a lower incidence among only children. Infections and cow's milk protein have been suggested as causes but no conclusive evidence is available. (Ed)

740. BANKS, A. L.
Enquiry into sudden death in infancy.
Canad J Public Health 57:328-30, Jul 66.

In progress for 10 years, is a study of sudden deaths in infancy occurring in certain defined areas of London and in Cambridgeshire. Pathological, bacteriological, virological, immunological, and sociological investigations were made and the social enquiries extended to controls matched for age, sex, area of residence, and time of year. Results suggest that 'unexplained' death in infancy is associated with early bottle feeding, use of a soft pillow, and recent infection; and that adoption of two simple precautions, (if a pillow is used it be hard; complete breast feeding the first two weeks of life) should break the fatal sequence and prevent many deaths. Included are detailed reports on morbid anatomy, histology, bacteriology, and virology; a memorandum on procedure and technique; the sociological questionnaires; a review of the literature, and analysis of the investigation into sudden death in twins. 10 References. (AEd)

741. CAMERON, A. H., ASHER, P.
Cot deaths in Birmingham 1958-61.
Med Sci Law 5:187-99, Oct 65.

Sudden unexpected deaths of 172, 4-week old infants (80 boys, 92 girls) in Birmingham, England, 1958-61, are described. In 97 cases of death with cause unknown after autopsy, 75 showed trachea-bronchitis and 48 aspiration of vomit. H. Influenza, hemolytic streptococci, and pneumococci were the most common organisms found in respiratory tract. Virological studies were negative. There was no evidence of hypogammaglobulinemia. Deaths occurred more often in poorer parts of the city, in winter, and on weekends. Babies in low socioeconomic environments are likely to suffer from respiratory infection which may cause regurgitation of food. No cot deaths occurred to breast fed infants suggesting that hypersensitivity to cow's milk may be responsible for cot deaths. Poor maternal care, poor housing, lack of education of parents all appear to be contributing factors. 7 tables. 16 figures. 16 references. (AEd)

742. CARPENTER, R. G., SHADDICK, C. W.
Role of infection, suffocation, and bottle feeding in cot death, an analysis of some factors in the histories of 110 cases and their controls.
Brit J Prev Soc Med 19:1-7, Jan 65.

Tabulations provided by the General Register Office, Great Britain, and sociological data relating to 110 "cot deaths" and 196 matched controls are analyzed. It is suggested that there were probably about 1,100 "cot deaths" in England and Wales in 1960. The sociological data show that "cot death" is significantly associated with the use of a soft pillow, bottle feeding especially during the first two weeks of life, and symptoms of respiratory disease in the two weeks before death. Several other factors are compared. 3 hypotheses as to the causes of "cot death" (infection, suffocation, and hypersensitivity reaction) are discussed. 7 tables. 2 figures. references. (AEd)

743. COOKE, R. T., WELCH, R. G.
A study in cot death.
Brit Med J 5424:159-54, 19 Dec 64.

Analysis of 122 sudden unexpected deaths in infancy and young childhood (annual rate of 9 per 100,000 population) during a 14-year period, English urban area of 90,000 persons. In 3/4 of the cases, certain characteristics were present, which, however, gave no indication of the cause of death, and in 1/2 there was no history of preceding illness. Investigation suggests a relation to the season of the year, the social grade of the parents, the birth weight of the child, and the size of the family. There is also a striking incidence in members of twin pairs. 6 tables. (AEd)

744. GEERTINGER, P.
Sudden, unexpected death in infancy. With special reference to the parathyroids.
Pediatrics 39:43-8, Jan 67.

There is evidence that congenital subability of the parathyroids of infants is subject to seasonal variation. Characteristics of typical sudden unexpected deaths of infants are: (1) notable seasonal variation in the time of birth, (2) high frequency of morphologically evident anomalies of the parathyroids, (3) low levels of citrate in serum, spinal fluid, and bone, and abnormally high level of calcium in spinal fluid pointing toward a disorder in calcium metabolism, and (4) appreciable preponderance of the male sex. It is hypothesized that SUD of infants is correlated to a congenital anomaly of the parathyroids. 4 figures. 26 references. (AEd)

745. GEERTINGER, P.
Sudden, unexpected infant death in Copenhagen.
Danish Med Bull 14:109-19, Jun 67.

Sudden, unexpected, infant deaths of unknown cause (SUD) occur predominantly in the 2nd-4th months of life, mainly in male children, and now comprise about

1/3 of all deaths at this age in West European countries. The seasonal occurrence of SUD does not allow that all result from respiratory infection. Possibly SUD is a result of a seasonal factor which exerts its influence on the mother during pregnancy. Virus infection has not been proved to be a main cause. Data from 164 consecutive infant deaths at 2-11 months with post-mortems at the Institute of Forensic Medicine, University of Copenhagen, are discussed. 80 children with unexplained cause of death were compared with 43 with completely explained causes and 41 with slight infections (mostly respiratory), for bacteriological, anatomical, and other differences. It is possible that SUD is related to an incomplete development of the parathyroid gland. 10 tables. 2 figures. 55 references. (AEd)

746. GUNTHER, M.
Cot deaths: Anaphylactic reaction after intrauterine infection as another potential cause.
Lancet 1:912-4, 23 Apr 66.

The hypothesis is put forward that anaphylactic shock, in some cases (due) to cow's milk proteins, may, in other cases be (due) to infective antigens and cause cot death. Attention is drawn to the unusual immune state of a baby in the first months of life after intrauterine infection. Studies reported of persistent rubella virus and changing antibody pattern are taken as evidence that during the first six months after birth some babies have unrecognised viral infection and active allergic response to it. On theoretical grounds, a resultant reaction might be expected to kill after prodromal symptoms or as a bolt from the blue. 22 references. (AA)

747. JOHNSTONE, J. M., LAWY, H. S.
Role of infection in cot deaths.
Brit Med J 5489:706-709, 19 Mar 66.

A detailed study of 56 infants found dead unexpectedly and in whom no pathological cause was ascertained. Pathogens were isolated from the lower respiratory tract in 37 (67%) of the 55 examined bacteriologically. No difference was found between the serum milk antibody titres in cases of cot deaths and in normal live infants of the same age and no virus was isolated. The results of the study are believed to support the view that a high proportion of cot deaths are due to fulminating infection of the lower respiratory tract. 8 tables. 16 references. (AA)

748. LANGWORTH, J. T., STEELE, R.
Sudden unexpected death in infancy.
Canad Nurse 62:41-5, Sep 66.

A decrease has been noted in deaths of infants in Canada, particularly those aged 28 days to one year. Investigation was undertaken at Queen's University, Kingston, Ontario, to determine how many infants in South Eastern Ontario died unexpectedly, how many deaths were unpredictable, and how many preventable. The authors comment on literature concerning accidental mechanical suffocation, status thymolymphaticus, bronchospasm, hypersensitivity to cow's milk, and viral infection. During the study, January through October 1965, 47 cases were identified, 38% of whom died at 1-2 months of age, 66% by 3 months, and 79% by 4 months. Socioeconomic circumstances of the parents were surveyed. 3 tables. 26 references. (AA)

749. PETERSON, D. R.
Sudden, unexpected death in infants. An epidemiologic study.
Amer J Epidem 84:478-82, Nov 66.

Sudden unexpected deaths in infants, King County, Washington, were identified circumstantially from death certificates. All but one had post-mortem examinations which ruled out a plainly obvious cause of death. During 1962-1964, 173 instances were found (2.87 per 1,000 live births). Males, nonwhites, babies of young mothers, and illegitimates were more susceptible. Low birth weight affected susceptibility most strikingly. Fewer cases occurred in July and August than in other months. No trend was seen in distribution by days of the week. Deaths were twice as frequent in morning as in afternoon hours. No geographic clustering was found. The data are compatible with the hypothesis that deaths occur in certain high-risk infants under diurnal influences and are triggered by mild unrecognized infection with microbiologic agents not found in previous studies, or perhaps by some other seasonally influenced factor. 2 tables. 2 figures. 7 references. (AA)

750. PORTER, A. M.
Unexpected cot deaths.
Lancet 1:914, 23 Apr 66.

It seems likely that cot deaths have a multiple etiology. If there were evidence to support the hypothesis in respect of even a small proportion of such deaths, then it would become mandatory to screen relatives and subsequent siblings of a deceased infant by aminoacid urine chromatography. It would also be legitimate to question why some dried milk products for infant feeding contain several times the protein content of human milk. 1 table. 15 references. (AA)

751. SOKOLOV, E. Ia., VASIL'EVA, G. P.
Apropos of sudden death in childhood.
Pediatriia 44:52-4, Jun 65. (RUS)

Analysis of infant death rate due to various diseases, 10-year period, showed that the largest number of sudden deaths occur between 4 and 6 months of age. Data concerning character of the disease, the seasons, and the peculiarities of development of affected infants are given. 2 figures. 1 reference. (AEd)

752. STEELE, R., LANGWORTH, J. T.
The relationship of antenatal and postnatal factors to sudden unexpected death in infancy.
Canad Med Ass J 94:1165-71, 28 May 66.

80 cases of sudden unexpected death in infancy (SUD) were identified in Ontario, and matched with live controls. Analysis showed that SUD occurred slightly more often in males than in females, and that the majority of deaths occurred under 4 months of age. SUD was shown to be significantly related to prematurity, other than breast feeding, low maternal age at time of marriage, first pregnancy, delayed first prenatal visit, maternal blood group, and cigarette smoking. Confirmation of these findings may allow the construction of profiles of infants particularly at risk and permit the institution of preventive measures. 15 tables. 12 references. (AEd)

753. SUTTON, R. N., EMERY, J. L.
Sudden death in infaney: A microbiologieal and epidemiological study
Arch Dis Child 41:674-7, Dec 66.

Incidenee of respiratory illness in the eommunity and unexpeeted deaths in infaney in the eity of Sheffield, 1961-1964, showed a close eorrelation espeeially during epidemie of influenza. The eontaets of 10 infants who died in this way were investigated for pathogenie viruses and baeteria. The proportion of eontaets who harbored sueh bacteria was signifieantly higher than that in a eontrol population. 3 figures. 21 referenees. (AEd)

754. VALDES-DAPENA, M. A.
Sudden and unexpeeted death in infancy: A review of the world literature 1954-1966.
Pediatrics 39:123-38 Jan 67.

This review diseusses many faetors related to sudden death in infaney ineluding pathologie changes, epidemiologie faetors, and etiologie mechanisms. Among the epidemiologie considerations are ineidenee by age, sex, raee, season, geographie location, socioeconomic group, maternal faetors, and family reoeeurrences. Among the etiologie meehanisms discussed are suffocation, infeetion, baeteriologic, viral or toxic agents, or metabolie errors. 13 tables. 105 referenees. (Ed)

G. OTHER OUTCOMES OF PREGNANCY

755. ACHESON, E. D.
Hospital morbidity in early life in relation to certain maternal and foetal characteristics and events at delivery.
Brit J Prev Soc Med 19:164-73, Oct 65.

Study of inpatient hospital morbidity during early months of life of 5,901 babies, born 1962, Oxford Record Linkage Study area. 203 (3%) were discharged once or more during 1962. Largest single cause of admission was congenital malformation. Hospital morbidity of babies delivered at home (3.2%) was almost identical to that of those delivered in hospital (3.5%), in spite of selection of difficult cases, nulliparas, and grand multiparas for delivery in hospital. Of characteristics studied, low maternal age was the most important in hospital morbidity of the baby. Babies less than 5½ lbs. at birth had significantly higher hospital morbidity, lowest rate was in babies 8 to 9 lbs. Type of delivery, length of second stage of labor, type of maternal anesthesia, or administration of oxygen to the baby at birth did not determine hospital morbidity of the baby. For domiciliary deliveries, there was a striking correlation between the week of gestation in which the first antenatal visit of the midwife took place and the morbidity of the baby. 15 tables. 4 figures. 11 references. Appendix. (AEd)

756. ADAMS, M. S., NEEL, J. V.
Children of incest.
Pediatrics 40:55-62, Jul 67.

18 prospectively ascertained cases of brother x sister and father x daughter matings are described. A series of illegitimate children whose mothers were as nearly matched as possible to the incest mothers for intelligence, age, height, weight, and socioeconomic conditions were used as controls. Six of the children of incest had died or were found to have major defects on followup 6 months after birth, whereas one of the comparison children was so classified. This is a larger inbreeding effect than would be predicted on the basis of published findings from marriages of first cousins. 5 tables. 12 references. (AA)

757. APGAR, V.
Drugs in pregnancy.
JAMA 190:840-1, 30 Nov 64.

A survey of medications administered in pregnancy and a brief discussion of published and prospective studies regarding the effect of the medications on the fetus and the newborn infant. Includes a table: "Medications and Changes Produced." 1 table. 5 references. (Ed)

758. BAIRD, D.
Variations in fertility associated with changes in health status.
J Chronic Dis 18:1109-24, Nov 65.

Discussion of reproductive capacity, and factors affecting fertility including health and physique of the mother, age and parity, spacing of children, diet in pregnancy, racial factors, and standard of obstetric care. The essentials for easy and efficient childbearing are youth and first class physical development and nutrition. If, in such women, the first child is born by age 20, the total restricted to 4, and the last born before age 30, the perinatal mortality would be very low, probably less than 15 per 1,000 from all causes, given a good standard of obstetric care. 9 tables. 19 references. (Ed)

759. BALODIMOS, M. C., HURXTHAL, L. M.
The remote prediabetic state. Effect on infant size, fetal and perinatal mortality.
Geriatrics 21:119-27, Sep 66.

30% of 200 elderly women with a mean age of 65 were diabetic. A similar high prevalence of abnormal carbohydrate tolerance in older persons has been reported by various authors. The pregnancies of 130 women (average of 34 years earlier, ranging from 16 to 65 years) were correlated with their present carbohydrate tolerance. A higher prevalence of multiple large infants and more than one obstetrical anomaly was found in those who were discovered to have diabetes 16 to 65 years later compared with those with a normal carbohydrate tolerance. Statistically no more large babies were born to diabetic women than to nondiabetic women. Although the prediabetic influence on obstetrical anomalies may extend indefinitely, it is not as evident as in the 2 to 5 year period preceding clinical onset. Many diabetic women give birth to normal infants and several women with normal carbohydrate tolerance tests 16 to 65 years later had abnormal pregnancies, possibly because of factors other than prediabetes causing obstetrical anomalies. 3 tables. 37 references. (AEd)

760. BANIK, N. D., KRISHNA, R., MANE, S. I.
Longitudinal study of morbidity and mortality pattern of children in Delhi during the first two years of life: a review of 1,000 children.
Indian J Med Res 55:504-12, May 67.

Morbidity and mortality pattern of 1,000 children in a Delhi longitudinal study during the first 2 years of life. Attempted to determine the effect of sex of children, socioeconomic and environmental background of families, maturity of children, and educational status of the mothers, on morbidity and mortality of the children. Adverse socioeconomic conditions, defective environmental sanitary conditions, over-crowding, lack of education of the mothers, particularly for health care of children, should be given serious consideration in planning public health programs for reduction of morbidity and mortality of children at early ages. 6 tables. 17 references. (AEd)

761. BARKER, D. J., RECORD, R. G.
The relationship of the presence of disease to birth order and maternal age.
Amer J Hum Genet 19:433-49, May 67.

Discussed are methods of analysis for determining whether the presence of a disease is correlated with birth order or maternal age. A new method for analysis within fraternities is described, and the interpretation of variations of disease incidence with birth rank, maternal age, and fertility is explored. 13 tables. 21 references. (AEd)

762. BARNO, A.
Criminal abortion–deaths and suicides in pregnancy in Minnesota, 1950-1964.
Minn Med 50:11-16, Jan 67.

Maternal deaths due to criminal abortion, 20 among 1,232,545 live births in Minnesota, 1950-1964, divided equally between septic abortion and air embolism and between illegitimacy and legal pregnancy. During the 15-year period, there were 14 suicides (1 per 88,039 live births); none were illegitimate pregnancies and none had requested abortion; 10 occurred postpartum, 4 with fetus in utero; 12 were psychotic depressives, 2 schizophrenics. Only 4 had sought psychiatric help. 9 tables. 7 references. (AEd)

763. BARTOSZEWSKI, A., RADOMANSKI, T., KLONOWSKI, H.
Effect of threatened abortion on the further course of pregnancy and the fate of the neonate.
Przegl Lek 22:747-8, 66. (POL)

The course of pregnancy and the fate of neonates in 90 out of 114 pregnant women hospitalized, because of threatened abortion, at First Obstetric and Gynecological Clinic, Lubin Academy of Medicine. Results, supported by data from the literature, show that every 5th case of threatened abortion ends in complete abortion. Compared with the whole population of pregnancies, in threatened abortion percent of aborted fetuses is 3 times higher. Mortality among neonates is also over 3 times as high, and the number of congenital defects is about twice as large. It is suggested that every woman threatened with abortion should seek treatment, since the majority of children born survived over 4 months i.e., they passed the age limit at which biologically weak neonates die. 10 references. (AEd)

764. BEDGER, J. E., GELPERIN, A., JACOBS, E. E.
Socioeconomic characteristics in relation to maternal and child health.
Pub Health Rep 81:829-33, Sep 66.

A project in Chicago begun in 1964 included: analysis of socioeconomic characteristics and their relation to major health problems; interviews with directors, board members, etc. of 161 voluntary health agencies; collection of data on incidence and prevalence of illness and disability among infants and prepartum and postpartum status of women; and superimposition of services over needs. Infant mortality rates were found to increase as income decreases. Proportion of the population nonwhite, level of income, and age of the mother were significantly related to maternal mortality. Data for Chicago and Cook County are given for income and various health indices. 3 tables. 10 references. (Ed)

765. BERENDES, H. W., WEISS, W., DEUTSCHBERGER, J.
Factors associated with breech delivery.
Amer J Public Health 55:708-19, May 65.

Study of relationship between breech delivery and various characteristics of the gravid woman and the product of her pregnancy. Data refer to some 17,000 pregnancies observed in 13 collaborating institutions, 1959-62. Do characteristics of the mother or of the fetus predispose to breech presentation? Race, age, parity, gestational age, sex of child, and birth weight are given for 16,634 nonbreech and 536 breech deliveries. Breech-type delivery was considerably greater, proportionately, among low than among heavier birth weight infants. Relatively more short gestational age fetuses were breech deliveries. Details of a linear discriminant analysis with 22 selected variables for evaluation are provided. 6 tables. 3 figures. (AEd)

766. BIERMAN, J. M., SIEGEL, E., FRENCH, F. E.
Analysis of the outcome of all pregnancies in a community. Kauai pregnancy study.
Amer J Obstet Gynec 91:37-45, 1 Jan 65.

A report of a study of all pregnancies on Kauai, Hawaii. For each 1,000 live births, there were an estimated 1,311 pregnancies which had advanced to four weeks' gestation; 286 had ended in fetal death before 20 weeks, and 25 more after that time. Of the live births, 100 had perinatal handicaps that required special care (16 of these died); 3 more died under age 2; and an additional 32 with IQ's from 70 to 80 may require special educational services. The 1,311 pregnancies yielded 865 living children at age 2 without handicaps recognizable by the methods used in this study. 3 tables. 3 figures. References. (AA)

767. BRAY, P. N.
Therapeutic abortion: incidence and indications in Minnesota.
Minn Med 50:129-36, Jan 67.

Data provided, regarding incidence of therapeutic abortion, 1955-64, from 26 hospitals in Duluth, St. Paul, Minneapolis, and Rochester. Of questionnaires to doctors regarding desired indications for therapeutic abortion, 200 were returned–106 by psychiatrists, 94 by obstetricians. Results are given. The Minnesota Obstetric-Gynecological Society preferred not to take official action as representing the Society. 27 tables. 1 form. (Ed)

768. BUCK, C., VALENTINE, G. H., HAMILTON, K.
Reproductive performance of mothers of mongols.
Amer J Ment Defic 70:886-94, May 66.

Reproductive histories study of 110 mothers of living mongol subjects, and of 100 controls. Mothers of mongols were not less fertile than the control mothers, nor did they show a pattern of fetal loss consistent with an inherent impairment of reproductive function. There was a slight tendency for their rate of fetal loss to be elevated during the age range in which the mongol was born. These results offer little support for the belief that among parents of mongol offspring are individuals with an unusually high risk of meiotic non-disjunction. This conclusion may not apply to parents whose mongol offspring died at an early age. 2 tables. 8 references. 3 appendixes. (AEd)

769. CLARK, J. F., WONG, J. A., NILES, J. H.
The pregnant adolescent.
Ann YN Acad Sci 142:813-6, 10 May 67.

A study at Freedman's Hospital, D.C., of 6,000 infants, delivered 1957-59, 291 of whom were to mothers ages 10-16 (5% of the total). 65% received no prenatal care until the third trimester, and 25% none at all. 21% of the infants were premature, and 2.4% were stillbirths. A second series, 1960-65, for 18,310 deliveries, 413 among adolescents, showed toxemia incidence to be 5 times higher among the adolescents than in other deliveries. 6 tables. 2 references. (Ed)

473. CZEIZEL, E., ELEK, E.
Seasonal changes in the frequency of fetal damage and fertility.
Orv Hetil 107:2466-9, 25 Dec 66. (HUN)

770. DAY, R. L.
Factors influencing offspring. Number of children, interval between pregnancies, and age of parents.
Amer J Dis Child 113:179-85, Feb 67.

Review of published studies on survival and health of children in relation to family size, spacing of pregnancies, and ages of parents. Younger age (20-30) of the mother and a young father are associated with greater survival of the infant and fewer of certain congenital malformations. First-born and higher birth order babies are associated with greater risk. 2-3 years between births is associated with lower infant and childhood mortality. 4 tables. 3 figures. 28 references.

771. DONALD, I.
Obstetric aspects of preventive medicine in the perinatal period.
Proc Roy Soc Med 59:184-8, Mar 66.

Assessment of conditions of birth of 1,500 babies born in Glasgow, Scotland; 203 had complicated deliveries; 766 were of normal pregnancy and labor. Apgar scores are given for cases of unfavorable pregnancy factors, for cases of unfavorable labor factors in normal pregnancy, and for unfavorable factors in pregnancy and labor combined. Among 5 classes of general physical assessment at birth, as given in the Apgar score, the one concerned with heart rate is the most important. Practices in the conduct of labor in which improvements have been made are reviewed. 5 tables. 23 references. (AEd)

772. DRURY, M. I.
Pregnancy in the diabetic.
Diabetes 15:830-5, Nov 66.

Study of 300 pregnancies in 156 Irish diabetics; 30% of the pregnancies were fifth or later; mean maternal age was 30 years. Abortion rate was 11% and loss of viable infants was 10%. There were no maternal deaths. Control of diabetes was strict and this is reflected in the occurrence of hypoglycemic coma on 21 occasions. Diabetic ketosis occurred in 12 cases; all were unbooked emergency admissions. The influence of these complications on fetal survival is contrasted. Pre-eclamptic toxemia and hydromnios in the mother, and respiratory distress syndrome in the infant contributed heavily to infant loss. Of recent years, the aim has been to deliver at 38 weeks in uncomplicated cases usually by the vaginal route. The cesarean section rate for the whole series was 22%, and for primigravidas, 29%. (AEd)

773. FARBER, R. E.
1965 birth certificates show encouraging trend in prenatal care.
Maryland Med J 15:153, Nov. 66.

Study of birth certificates for 1965 in Baltimore shows the following gains: (1) Increased utilization of existing health facilities for prenatal care, (2) More pregnant nonwhite girls under 16 sought prenatal care (16.2%, 1965; 8.4%, 1964) and improvement was shown by all age groups in nonwhite women, (3) Death rate for nonwhite infants dropped by 13.5% over 1964, although the death rate for white infants remained about the same, (4) Live birth rate of residents declined, white by 10.8% and nonwhite by 8.2%. The Baltimore Maternity Center cared for 6,243 pregnant patients in 1965, and 6,211 in 1964. (Ed)

774. FOX, H.
The significance of placental infarction in perinatal morbidity and mortality.
Biol Neonat 11:87-105, 67.

Infarction is recognized as a localized area of villous necrosis due to a local obstruction, and to maternal uteroplacental circulation. The incidence was studied in 715 placentas. Infarcts were found in approximately 1/4 of placentas from uncomplicated pregnancies. Preeclamptic toxemia and essential hypertension were the only maternal factors associated with an increase in incidence or extent of infarction. Extensive infarction was associated with a high incidence of neonatal asphyxia, low birth weight, and intrauterine death. Infarction could only be invoked as a common cause of death in pregnancy complicated by toxemia or accidental antipartum hemorrhage. It is significant that low birth weight found in cases with infarction is frequently due as much to the associated maternal arteriolar and concomitant placental ischemia as to the actual loss of placental tissue. 9 tables. 4 figures. 65 references. (AEd)

775. FREEDMAN, R., COOMBS, L. C., FRIEDMAN, J.
Social correlates of fetal mortality.
Milbank Mem Fund Quart 55:327-44, Jul 66.

Longitudinal study of fetal mortality among a random sample of white women in the Detroit area who had a 1st, 2nd, or 4th line birth in July 1961. After an intensive initial interview, there were brief followup interviews 9 and 21 months later. Data are presented on fetal loss rates in relation to age, parity, prior fetal loss, family income, mother's employment, expectations and preferences about number and timing of children, and attitudes toward pregnancy. 8 tables. 17 references. (Ed)

776. FUJIKURA, T., FROEHLICH, L. A.
Intrauterine pneumonia in relation to birth weight and race.
Amer J Obstet Gynec 97:81-4, 1 Jan 67.

Intrauterine pneumonia remains a common and often fatal infectious process despite the advent of antibiotics. Acute chorioamnionitis is generally accepted as its frequent precursor. In a histologic evaluation of pulmonary sections of 512 neonatal deaths within the first 48 hours of life out of 36,212 single live births, 20% were found to have pneumonia. The proportion of neonatal deaths showing pneumonia was higher in the Negro (28%) than in the white (11%) and consistently high in the Negro at each birth weight interval. The association of pneumonia and chorioamnionitis was more pronounced in the Negro (51%) than in the white (28%). In the white, the incidence of pneumonia was higher in mature (birth weight over 2,500 grams) than in premature infants; in the Negro it was not higher in premature compared to mature infants. This is in contrast to chorioamnionitis which is more common in premature births. 3 tables. 15 references. (AA)

777. GOLDBERG, D., GOLDSTEIN, H., QUADE, D.
Association of perinatal factors with blindness in children.
Pub Health Rep 82:519-21, Jun 67.

Retrospective study of 553 legally blind children of single birth born in New York State during a 12-year period compared with a control group from the New York State population. Results showed a higher proportion of mothers of cases: (1) were nonwhite, (2) were at the extremes of maternal age (under 20 or 35 or older), (3) were primiparas, (4) had prior stillbirths (in upstate New York), (5) had complications of pregnancy due principally to a significant excess of pre-eclampsia. With regard to type of blinding affection, congenital cataract was the most notable associated with low birth weight. Supplementary information indicated that the proportion of blind children who were of twin birth was appreciably higher than the usual incidence of twins among live births. 10 tables. 18 references. (AEd)

525. GRAVEN, S. N., OPITZ, J. M., HARRISON, M.
The respiratory distress syndrome. Risk related to maternal factors.
Amer J Obstet Gynec 96:969-76, 1 Dec 66.

778. HENDERSON, M., REINKE, W. A.
Analytical bias in studies of pregnancy outcome.
Amer J Obstet Gynec 96:735-40, 1 Nov 66.

Description of three types of bias introduced into analysis of studies of pregnancy. In each case, the bias came from selection of patients for final analysis. The application of the examples of bias described is not restricted to studies of pregnancy outcome. Any comparative study continued over an interval of time is open to similar opportunities for selection leading to similar problems of bias. It is hoped that this report will emphasize the need to control selection during the study or to use adjusted rates during analysis. 5 tables. 3 figures. (AA)

779. HENDRICKS, C. H.
Delivery patterns and reproductive efficiency among groups of differing socioeconomic status and ethnic origins.
Amer J Obstet Gynec 97:608-24, 1 Mar 67.

To assess relative importance of ethnic versus socioeconomic components as they affect reproductive performance, two groups of women, one white and one nonwhite were studied. Socioeconomically more favored (private service patients) were compared with socioeconomically less favored (staff service) in each group. Groups of higher socioeconomic standing resemble each other in their obstetric performance more than they resemble their ethnic counterparts in the less favored groups. Both higher socioeconomic groups exhibited superior reproductive performance in the following parameters: perinatal mortality, prematurity by weight, prematurity by weeks, ectopic pregnancy, and preeclampsia. 3 tables. 9 figures. 26 references. Discussion. (AEd)

780. HENDRICKS, C. H.
Twinning in relation to birth weight, mortality, and congenital anomalies.
Obstet Gynec 27:47-53, Jan 66.

Among 438 women delivered of multiple pregnancies at University Hospitals of Cleveland in a 9-year period ending December 1964, twinning rate was higher among women of high parity, those in their fourth decade, and among those who had previously borne twin pregnancies. The high perinatal mortality rate is paralleled by a high incidence of congenital anomalies. Each of these factors is observed oftener in those infants whose birth weight falls more than 1 Standard Deviation below the mean birth weight of all twin infants born at equivalent weeks of gestation. It is concluded that hazards for a twin fetus are more biological than obstetrical. 4 tables. 4 figures. 4 references. (AA)

781. HEUSER, R. L.
Multiple births, U.S., 1964.
Vital and Health Statistics. Series 21, No. 14, Oct 67.

Twinning rates have declined since the 1920's. Multiple deliveries are more frequent among Negro women than white. Rate of twinning rises to ages 35-39, and then declines. The higher the parity, the more likelihood of twins. Observed differences are due almost entirely to dizygotic twins. Monozygotic twins occur with about the same frequency regardless of age or parity of the mother. The proportion of triplets among all deliveries is approximately the square of the proportion of twins among all deliveries, as predicted by the Hellin-Zeleny hypothesis. Triplet rates show the same relationships by age and parity as twin rates. 5 tables. (AEd)

930. HEWITT, D., SANDERS, B., STEWART, A.
Oxford survey of childhood cancers: Progress report, IV, reliability of data reported by case and control mothers.
Monthly Bull Minist Health (London) 25:80-5, Apr 66.

782. HOLLINGSWORTH, M. J., DUNCAN, C.
The birth weight and survival of Ghanaian twins.
Ann Hum Genet 30:13-24, Jul 66.

286 Ghanaian twin births are analyzed with regard to birth weight, maternal age, parity, and survival, and are compared with European data. There is a significant but unexplained shortage of female-female twins. The differences between Ghanaian and European twin birth weights (0.2 lb.) are much less than the differences between weights of single babies (0.9 lb.). The very high correlation (r=0.8) between parity and mother's age in the data is due to the association between twinning and these variables. The high parity of the Ghanaian twins (15%) is similar to that of Italian twins and lower than that for some English twins (21%). This is shown to be largely due to the lower proportion of low weight Ghanaian twins. It is suggested that this may be because twinning is a more natural phenomena in Ghanaian than in European women. 26 tables. 1 figure. 9 references. Appendix. (AA)

686. ILLSLEY, R.
Preventive medicine in the perinatal period. Early prediction of perinatal risk.
Proc Roy Soc Med 59:181-4, Mar 66.

783. ISHCHENDO, I. M.
On the analysis of maternal mortality.
Sovet Zdravookhr Kirgiz 6:43-7, Nov-Dec 65. (RUS)

No English summary.

784. KANE, S. H.
Advancing age and the primigravida.
Obstet Gynec 29:409-14 Mar 67.

Neither knowledge nor experience is adequately available on the "elderly primipara." The magnetic tape files of the Perinatal Study of the Foundation for Medical Research (Philadelphia, Pennsylvania) were searched in an attempt to obtain some meaningful material. The following conclusions have been drawn from the study: Advancing age in the primigravida would appear to produce certain inherent risks. Present obstetric technics have tended to level off the mortality rate for both the elderly primigravida and her baby. The concept of the arbitrary age (35 years) at which maternal risk increases should be abandoned as a myth and the more logical concept of a sliding scale of difficulty should replace it. 4 tables. 19 references. (AEd)

785. LYSTER, W. R., BISHOP, M. W.
An association between rainfall and sex ratio in man.
J Reprod Fertil 10:35-47, Aug 65.

Seasonal variations in secondary sex ratio in man in Perth, Adelaide, and Brisbane appear to be influenced by seasonal variations in rainfall. In these cities, the onset of the rainy season is followed about 11 months later by a larger than normal excess of male births. Sex ratio in Sydney, however, where rainfall is more evenly distributed throughout the year, does not vary markedly with season; but a relationship between rainfall and sex ratio again becomes apparent when the data are analyzed in terms of wet months and dry months and of wet years and dry years. It is suggested that secondary sex ratio is affected by trace elements in drinking water that alter with variations in rainfall. Support for this hypothesis has been obtained from an examination of sex ratios in two regions of Australia with trace element deficiencies. It is also suggested that drinking water exerts its effect through the male parent and that the observed variations in secondary sex ratio reflect similar variations in primary sex ratio. 11 tables. 1 figure. 7 references. (AEd)

786. MCDONALD, R. I.
Lunar and seasonal variations in obstetric factors.
J Genet Psychol 108:81-7, Mar 66.

To assess lunar and seasonal variations in obstetric factors such as birth rates, birth weights, and incidence of prematurity. Subjects were 1,909 fullterm Negro deliveries occurring over a six-year period at a southern community hospital. Births via caesarean section of induction were excluded. Significant findings were: (1) more births occur during the newmoon and fullmoon phases than during the quarter phases, (2) monthly variations are observed in female birth rates, highest rates occurring in August and September, (3) there is a spring birth trough (March, April, May) for female births, (4) mean male birth weights are reliably larger than mean female birth weights, and (5) mean male birth weights for fall months (September, October, November) are larger than those for spring months (March, April, May). These findings are discussed and related to previous results. 2 tables. 18 references. (AA)

787. MENYASZ, E., ONA, M., KESE, G.
Clinical observations and laboratory studies on the effect of lead on pregnancy.
Zbl Gynaek 87:27-34, 2 Jan 65. (GER)

Two groups of pregnant women who worked in lead-containing surroundings were observed. It was found that in women who delivered living, fullterm infants, lead tests were negative or only slightly positive. Where pregnancy ended in infant death, spontaneous miscarriage, or premature birth, the lead tests of the mothers were definitely positive. Disseminating organic lesions were found in the fetus. The premature birth rate was 8%, the spontaneous miscarriage rate 22% in the group with positive lead tests. 2 tables. 3 figures. 1 reference. (AEd)

788. MEY, R., GORG, I.
Smoking and pregnancy.
Med Klin 62:5-10, 6 Jan 67. (GER)

No English summary.

789. MICKAL, A., BEGNEAUD, W. P., WEESE, W. H.
Glucose tolerance and excessively large infants. A twelve-year followup study.
Amer J Obstet Gynec 94:62-4, 1 Jan 66.

Obesity, abnormal glucose curves, and repeated delivery of infants in excess of 4,500g are significant with regard to the future development of diabetes. 79% of the patients in this study who had this triad are now diabetic. Of the 67 tested, 24 (36%) are diabetic, and 14 (21%) have an abnormal curve in the nonpregnant state. 60% of the women who had one or more large infants now have a diabetic or prediabetic curve. 2 tables. 14 references. (AEd)

790. MONIF, G. R., SEVER, J. L., COCHRAN, W. D.
The H-1 and the RV viruses and pregnancy: Serological study of certain groups of pregnant women: A report from the collaborative study of cerebral palsy.
J Pediat 67:253-6, Aug 65.

Serial serum specimens from 133 women whose pregnancies terminated in: (1) spontaneous abortions, (2) stillbirths, (3) mongolism, or (4) congenital defects involving bone and cartilage of the skull, were tested along with specimens from 266 matched normal controls to assess frequency and significance of human infections during pregnancy with H-1 and RV viruses. Antibody was detected in only two women, and the sole infection as manifested by a significant rise in antibody titer occurred in a mother whose pregnancy terminated in delivery of a mongoloid child with a 21 trisomy. This lack of detectable effect found in studies does not preclude the biological significance of these viruses; however, there was no evidence that these viruses adversely affected this study population. 1 table. 9 references. (AA)

791. NISWANDER, K. R., BERENDES, H., DEUTSCHBERGER, J.
Fetal morbidity following potentially anoxigenic obstetric conditions. V. Organic heart disease.
Amer J Obstet Gynec 98:871-6, 15 Jul 67.

The charts of 327 pregnant women with organic heart disease were abstracted and analyzed primarily for fetal effect of the disease. Careful prenatal and pediatric care

apparently markedly decreased the risk of perinatal death. The prematurity rate was considerably higher than expected and there was evidence that the fetuses had suffered from mild perinatal anoxia. Neurological evaluation of the children to the age of one year failed to reveal any evidence of neurological dysfunction related to the presence of organic heart disease in the mother. 6 tables. 13 references. (AA)

792. OPPE, T. E.
Risk registers for babies.
Develop Med Child Neurol 9:13-21, Feb 67.

The principles of the "at risk" concept for the early detection of handicapped children are examined as to the value of "at risk" registers as currently orgainzed in Britain. As a result of this critique, revised criteria are suggested for the placing of infants on the "at risk" register which it is hoped might increase their value for both clinical and research purposes. 5 references. (AA)

174. PAFFENBARGER, R. S., MCCABE, L. J.
The effect of obstetric and perinatal events on risk of mental illness in women of childbearing age.
Amer J Public Health 56:400-07, Mar 66.

793. PARADISE, J. L.
Maternal and other factors in the etiology of infantile colic. Report of a prospective study of 146 infants.
JAMA 197:191-9, 18 Jul 66.

Significant colic developed in 23% of 146 normal newborns. Its incidence was unrelated to family economic class, maternal age, birth order, sex, weight gain, type of feeding, or family history of allergic or gastrointestinal disorder. Superior maternal intelligence and advanced maternal education seemed associated with a higher than average incidence of colic, possibly because of better maternal reporting or lower maternal tolerance. The occurrence of colic showed no relationship to maternal emotional factors, whether estimated clinically or measured by a standardized psychological test. Most mothers of infants with colic were stable, cheerful, and feminine. This evidence, and other evidence when critically reviewed, does not support the frequently stated view that colic results from an unfavorable emotional climate created by an inexperienced, anxious, hostile, or unmotherly mother. 10 tables. 2 figures. 24 references. (AA)

794. PATRICK, M. J.
Influence of maternal renal infection on the fetus and infant.
Arch Dis Child 42:208-13, Apr 67.

Abortion, stillbirth, and prematurity rates were not increased in bacteriuric patients, whether or not this persisted throughout pregnancy or was eradicated by prolonged chemotherapy, when compared with a group of nonbacteriuric antenatal patients at Stobhill General Hospital, Glasgow. The neonatal death rate was significantly increased in the bacteriuric mothers as a whole, and this was mainly due to defects of dorsal midline fusion. Asymptomatic bacteriuric and clinical pyelonephritis were significantly more frequent in the infants of bacteriuric mothers as a whole, compared to those of nonbacteriuric mothers. Evidence of infection, to suggest that material bacteremia can involve the fetus, was found in amniotic fluid, umbilical cord blood, placentas, and cords. 5 tables. 30 references. (AA)

795. PILDES, R. S., FORBES, A. E., CORNBLATH, M.
Studies of carbohydrate metabolism in the newborn infant. IX. Blood glucose levels and hypoglycemia in twins.
Pediatrics 40:69-77, Jul 67.

Blood sugar determinations were done during the first 5 days of life on 100 sets of twins. Hypoglycemia was found in the smaller in 8 of eleven pairs who were discordant by more than 25% with the smaller twin weighing less than 2.0 kg. Hypoglycemia occurred in one other pair of the remaining 89 sets of twins. Blood glucose values were not influenced by birth order or sex of the infants. Infants who weighed over 2,500 gm had significantly higher blood sugars than those who weighed below 2,500 gm. 1 table. 2 figures. 35 references. (AA)

796. POINTS, T. C.
Epidemiological approach to maternity health needs.
J Okla Med Ass 58:230-4, Jun 65.

An epidemiological study of maternal health needs pertaining to deliveries of 4,708 babies at University of Oklahoma Medical Center Hospital, 1959-1961. 51% of the babies were Negro, 4% Indian. 86% of the white women and 60% of the Negro women were married. A higher percentage of white patients had prenatal care beginning, in general, earlier in the gestation period. The premature rate was highest for those patients who did not have prenatal care. Overall perinatal mortality rate was highest in the "no-prenatal-care" group. The perinatal mortality rate was higher for Negro than for white patients. 3 tables. 19 references. (AEd)

797. RENKONEN, K. O.
The mothers of twins and their fertility.
Ann Med Exp Fenn 44:322-5, 66.

Average number of deliveries of mothers with twins exceeded the normal average of 3.3 by 0.5 deliveries in Australia (1910-1914) and the normal 2.5 by 0.5 in New York State (1936-37). It is preferable to assess the twinning rates as the number of twin births divided by the number of births within the twin families and not by the number of all births. On the basis of a series of families with twins and/or triplets, collected from Finland and Sweden, the influence of birth order and of age of mother on twinning rate has been evaluated. Within the three first birth orders, the rate increased with mother's age but hardly at all within the late birth orders. With increasing birth order the twinning rate diminished decidedly. These findings suggest that the estimated characteristic of mothers with twins is high fertility. Immunological aspects as well as family planning may influence the rate of twinning in different birth orders and age groups of mothers. 3 tables. 5 references. (AA)

798. RICHARDS, I. D., ROBERTS, C. J.
The "at risk" infant.
Lancet 2:711-3, 30 Sep 67.

Widespread adoption of the idea of an "at risk" register, for the detection of handicapping disease in infancy, has led to the situation in which an undefined population is being screened for undefined conditions by people who, for the most part, are untrained to detect the conditions for which they are looking. The "at risk" concept is an unsound basis for the detection of handicapping dis-

orders. There is no alternative to the clinical examination of all infants in the neonatal period, their screening for metabolic and auditory defects at the proper ages and the careful observation of every infant's developmental progress by doctors supported by health visitors. (AA)

799. ROBINSON, D.
Obstetrical care and social patterns in metropolitan Boston.
Pub Health Rep 82:117-26, Feb 67.

Data from 2,445 birth certificates filed in Boston, 1962, for 10% of the infant population restricted to maritally normal families and for all 1,791 out-of-wedlock births. Birth weight, fertility, maternal age, and prematurity are discussed in relation to ethnic group, legitimacy of births, immigration status (foreign and out-of-State), and socioeconomic status. There was considerable disparity in the use of particular hospital facilities by different social, economic, and ethnic groups. Virtually all complications of pregnancy were channeled into 5 of the 13 hospitals in Boston, with a special concentration into 1 unit, not all because of geographic convenience. Examination of qualifications of physicians attending 3,040 births revealed that physician coverage was primarily determined by socioeconomic and ethnic groups. Board certified obstetricians tended to practice among white, married, suburban women. Less affluent whites depended on general practitioners with less obstetrical experiences. Unmarried white and Negro women depended primarily on hospital interns. Residents cared for the youngest, the primigravidas, and those with acute social problems that were likely to affect the course and outcome of the pregnancy. 4 tables. 25 references. (AEd)

800. RUSSELL, C. S., TAYLOR, R., MADDISON, R. N.
Some effects of smoking in pregnancy.
J Obstet Gynaec Brit Comm 73:742-6, Oct 66.

A preliminary prospective survey of 2,257 pregnant women for possible harmful effects of smoking. The analysis indicates that regular smoking of 5 or more cigarettes a day (as contrasted with nonsmoking, occasional smoking, taken together) has the following effects: (1) lower baby weight, though observed throughout pregnancy, is most marked between the 38th and 42nd weeks, (2) increased risk of prematurity in those women who report early pregnancy bleeding but not in other women, (3) increased risk of abortion, stillbirth, and neonatal death. 5 tables. 1 figure. 12 references. (AA)

801. RUSSELL, P. A.
Subdural haematoma in infancy.
Brit Med J 5459:446-8, Aug 65.

25 cases of subdural haematoma in infancy are reviewed. All the patients presented were less than 2 years old, and less than half had a history of trauma. The common presenting symptoms were convulsions, vomiting, and drowsiness. The common signs were increased tension of the anterior fontanelle, retinal haemorrhage, anemia, and increased head circumference. The non-specificity of the presenting symptoms is stressed. The plan of treatment adopted is outlined, and prognosis assessed in a followup ranging from 1 to 5 years. 60% of the children appeared physically and mentally normal. Factors affecting prognosis and controversial aspects of treatment are discussed. 2 tables. 1 figure. 19 references. (AA)

802. SEVER, J. L., NELSON, K. B., GILKERSON, M. R.
Rubella epidemic, 1964: Effect on 6,000 pregnancies.
Amer J Dis Child 110:395-407, Oct 65.

During the rubella epidemic, spring 1964, 6,161 pregnant women were studied by 11 institutions in the collaborative study of cerebral palsy. Analysis of this population and the pregnancy outcomes through the neonatal period for the 750 women, who had clinical rubella or were exposed during the first trimester, yields statistics on incidence of congenital rubella syndrome, clinical illness, chronic infection, and prematurity. 13 tables. 6 figures. 25 references. (AEd)

803. SIEGEL, E., CHINNOCK, R. F., HYMAN, C. B.
Hemolytic disease of the newborn. Review of deaths in California.
Calif Med 105:81-8, Aug 66.

To find ways to decrease mortality from hemolytic disease of newborn (HDN), a study was undertaken of 398 neonatal deaths during a 2½ year period. These were evaluated by review committees for presumed deficiencies in management. Findings indicate that proper prenatal prediction and preparation by physician for management of HDN calls for earlier and more comprehensive use of warning signals, as well as constant reappraisal of current technology. New advances in management of HDN require increasingly close cooperation between patients and physicians and consultants. 5 tables. 23 references. 2 appendixes. (AEd)

804. SPIVAK, M. M.
Therapeutic abortion. A 12-year review at the Toronto General Hospital, 1954-1965.
Amer J Obstet Gynec 97:316-23, 1 Feb 67.

Presented are data from 262 therapeutic abortions at Toronto General Hospital, 1954-1965. Indications for therapeutic abortion and methods used in terminating pregnancy along with subsequent morbidity and complications are outlined. The value of the therapeutic abortion committee, and proposed changes to liberalize abortion statutes, are presented. 6 tables. 11 references. (AA)

805. SUZUMURA, M., KIKUCHI, S.
Induced abortion in Japan—review of literature.
J Jap Obstet Gyner Soc (Eng) 13:179-97, Jul 66.

The real number of induced abortions in Japan is unknown. The majority of the operations are performed by specially "authorized" doctors; incidence of side effects is much lower than in other countries where the majority of abortions are done "criminally". The sacrifice of the fetus, and its side effects, make the operation undesirable. Quite often, disorders caused by induced abortion are taken as the sequelae of induced abortions when in a strict sense they should be interpreted as those of miscarriage or even of eutocia. Many disorders are retrospectively investigated when they should be done prospectively. From the literature, habitual and natural abortions are the only sequelae attributable to the induced abortion. Of serious direct side effects, uterine injury, bleeding, and inflammation are the most prominent. When induced abortion is indicated, it should be performed before the 4th gestational month. 18 tables. 71 references. (AEd)

806. TIMONEN, S., LOKKI, O., WICHMANN, K.
Seasonal changes in obstetrical phenomena.
Acta Obstet Gynec Scand 44:507-33, 66.

Seasonal variations in obstetrical phenomena were examined in two series of deliveries, 27,522 from Helsinki and 57,089 from the whole of Finland. Factors examined were: conception rates, duration of pregnancy, prematurity, duration of labor, hyperemesis, toxemia, birth weight, sex ratio, jaundice, and obstetrical infections. All factors except prematurity showed seasonal variations. 13 tables. 2 figures. 31 references. (AEd)

807. TRAINOR, P. E., WHALEN, R. P.
Evaluation of quality of infant medical records.
New York J Med 67:1911-4, 1 Jul 67.

Deficiencies in medical records of newborns were found in a study by the Empire State Medical Scientific and Educational Foundation, Inc. The findings were a sidelight of a continuing medical audit program that dates back to 1963. 48% of records reviewed totally lacked medical orders for the newborn. A general lack of record keeping for the newborn child was found particularly in smaller hospitals. Major deficiencies, found in all hospitals regardless of size, were lack of medical orders, lack of dates on medical notes, and delay of 2 or more days from time of birth to time of record note. 1 reference. (Ed)

808. TROLLE, D.
A survey of pregnancy wastage, perinatal mortality and maternal mortality and a suggestion for a uniform international classification.
Danish Med Bull 14:10-6, Jan 67.

Statistical data are influenced by the choice of definition, and uniform definitions are proposed in order to facilitate international classification. It is recommended that the total number of pregnancies be registered, since almost 95 percent of pregnancy wastage takes place within the first 28 weeks of gestation. 8 tables. 15 references. (AEd)

809. TURCHETTI, G., LATTANZI, E., PALAGI, R.
On the influence of essential nephropathies of pregnancy on life of the fetus and vitality of the newborn.
Minerva Ginec 17:143-9, 15 Feb 65. (IT)

The case file of the obstetrical and gynecological clinic, University of Pisa, 1950-1963, was examined for clinical and statistical evaluation of perinatal mortality in gravidic toxicoses. From a study of the statistical data, the unfavorable influence of gestosis on fetal life and neonate vitality was evident. 14 tables. 5 figures. 20 references. (AEd)

810. UNDERWOOD, P. B., KESLER, K. F., O'LANE, J. M.
Parental smoking empirically related to pregnancy outcome.
Obstet Gynec 29:1-8, Jan 67.

A prospective statistical study of 48,505 pregnancies was carried out to evaluate the effects of parental smoking on pregnancy. Although the infants were smaller and the incidence of prematurity greater, no adverse effect of maternal smoking during pregnancy was shown in terms of perinatal mortality. The incidence of preeclampsia was decreased with maternal smoking; however, other more frequent complications of pregnancy were incurred. Neither smoking by fathers nor the use of filter type cigarettes affected the outcome of pregnancy. 6 tables. 5 figures. 19 references. (AA)

811. UTIAN, W. H.
Obstetrical implications of pregnancy in primigravidae aged 16 years or less.
Brit Med J 2:734-6, 17 Jun 67.

A series of 100 consecutive white primigravid patients aged 13 to 16 years was analysed and compared with a control group of 100 consecutive white 22-year old primigravid patients. In the former there was a high incidence of hypertension and toxemia; the prematurity rate was higher as was the perinatal mortality. There was also a greater incidence of prolonged labor. Though the fetal head was not engaged before labor in half of the patients, instrument delivery and caesarean section rate was very low. This series is compared with other studies. 2 tables. 10 references. (AEd)

812. VERRELLI, D.
Closely spaced pregnancies, influence on the mother and fetus.
Quad Clin Ostet Ginec 19:1132-62, Dec 64. (IT)

Observations by several authors on closely spaced pregnancies are noted. Various anomalies of childbirth are listed, with references to literature on each. Review of about 100 cases of patients at the obstetric and gynecological clinic, University of Parma, Italy, and conclusions. 4 tables. 49 references. (Ed)

813. WALLACE, H. M.
Teen-age pregnancy.
Amer J Obstet Gynec 92:1125-31, 15 Aug 65.

Significant facts from various sources are cited including demographic data, clinical findings, nutrition, venereal disease, and out-of-wedlock pregnancy. In 1959, 14% of all babies were born to teen-age mothers. For this group, higher rates of prematurity, neonatal mortality, and low birth weight infants were found. 4 tables. 1 figure. 9 references. (Ed)

814. WALTERS, W. A.
Effects of sustained maternal hypertension on foetal growth and survival.
Lancet 2:1214-7, 3 Dec 66.

Survey of all booked city primigravidas in Aberdeen (Scotland), 1951-1960, revealed low incidence of sustained hypertension in pregnancy, 0.6%. Among 55 patients with sustained hypertension the perinatal mortality (7%) was almost 3 times as high as in normotensive primigravidas (2.6%). Other adverse factors besides hypertension were present in all 4 cases of perinatal death. Where sustained hypertension was the only adverse factor, no perinatal deaths occurred. The perinatal mortality in all subsequent pregnancies among patients who had sustained hypertension in their first pregnancies was low (1.7%). Sustained hypertension of mild to moderate degree did not influence the growth of the fetus. 5 tables. 6 references. (AEd)

815. YEN, S. S.
Abnormal carbohydrate metabolism and pregnancy. A study among pregnant Guamanian women.
Amer J Obset Gynec 90:468-73, 15 Oct 64.

In view of the striking prevalence of diabetes mellitus in the native population of Guam, particularly among women, a study of some of the characteristics of carbo-

hydrate metabolism in a group of pregnant Guamanian women was undertaken. The study indicated that Guam's entire pregnant population may be "diabetes prone," and brought out other medical entities that are noteworthy because of their frequency on the island of Guam. 6 figures. References. (AA)

816. ZANARDI, E., SEGATA, L.
Hemolytic disease of the newborn caused by RH isoimmunization. Clinico-statistical findings.
Riv Ital Ginec 50:433-52, Jun-Jul 66. (IT)

Data from 9,200 deliveries at Bologna University, 1961-64, revealed incidence of neonatal hemolytic disease due to RH isoimmunization at 0.4% among total newborns and 3% among children born to RH negative mothers. 58% appeared during the second pregnancy, 15% during the third. Stillbirths occurred in 17% of the cases and postnatal mortality was 7%. The more severe forms were correlated with maternal anti-RH titers greater than 1:64. In cases with early exchange transfusion (70%), no sequelae were observed. Present diagnostic and prophylactic and therapeutic problems are discussed. 10 tables. 1 chart. 68 references. (AEd)

817. ZWERDLING, M. A.
Factors pertaining to prolonged pregnancy and its outcome.
Pediatrics 40:202-12, Aug 67.

Pregnancies that extended more than 3 weeks beyond the expected date of confinement were studied among 9,719 single, white births from the Child Health and Development Studies in Oakland, California, and among 357,702 births that represented all white singleton pregnancies in New York City, 1957-1959. In both studies, prolonged pregnancy was associated with younger maternal age, primigravidas, high parity, fetal and neonatal mortality, congenital anomalies, poorer health status for the first 3 years of life, and recurrence of prolonged pregnancies in successful gestations. Data on growth and intelligence in a small group examined at age 5 revealed no differences between children of prolonged and of normal gestation. There was no gross placental finding to support the hypothesis of placental senility as a cause of pathology in prolonged pregnancies. 10 tables. 18 references. (AEd)

A. ANALYSIS, TECHNIQUES OF

818. ALTMAN, I., CIOCCO, A.
Introduction to occupational health statistics. IV. Association and correlation.
J Occup Med 8:35-9, Jan 66.

Referring to the situation where two kinds of observations have been made on the same population group, or where the same observations have been made on two groups, and we wish to compare the two sets of results, questions such as these arise: Is there an association between the two items being compared, and, if so, how strong is the association, and what is the nature of it, for example, is one variable producing the other? The author explains the application of the chi-square test to such problems, describes the coefficient of correlation ("*r*"), and the statistical representation of the cause and effect association. 6 figures. 7 references. (AA)

819. ASKANSAS, Z., CZERWINSKA, S., LISZEWSKA, D.
An epidemiological method used in preliminary determination of morbidity and occurrence of coronary disease according to the inquiry data and ECG findings.
Pol Tyg Lek 21:1395-9, 12 Sep 66.

Discussion of methodology in epidemiological surveys of coronary disease. Diagnoses were based on interviews of patients, objective examination, and ECG findings. Method of selection and differences between clinical and epidemiological methods are discussed. 1 table. 12 references. (AEd)

820. ASKANAS, Z., CZERWINSKA, S., LISZEWSKA, D.
Methods for the evaluation of results of the representative investigation of blood pressure distribution in a general population.
Pol Tyg Lek 20:1039-42, 12 Jul 65. (POL)

Discussion of methods of tabulating and evaluating results of representative investigations of arterial blood pressure distribution in large populations. Errors in the evaluation of studied parameters in the population, caused by inappropriate tabulation of data, and method of evaluation of features in the population according to results of a representative sample are discussed. 1 table. 5 references. (AEd)

821. BAKER, T. D.
Problems in measuring the influence of economic levels on morbidity.
Amer J Public Health 56:499-507, Mar 66.

Morbidity-economic patterns may show large, apparent shifts, depending upon the methods of measuring economic level and morbidity. The explanation of these shifts may be that economic level per se has no direct causal relationship with morbidity but acts through a series of more or less closely correlated variables, such as age, sex, health practices, nutrition, housing, availability of medical care. Examples are drawn from the author's study in Taiwan and from National Health Survey data. 2 tables. 2 figures. 36 references. (AEd)

822. BARTON, D. E., DAVID, F. N., MERRINGTON, M.
A criterion for testing contagion in time and space.
Ann Hum Genet 29:97-102, Aug 65.

According to a test made in England, a criterion for testing the association of the occurrence of diseases in place and time is applied to measles, poliomyelitis, and acute leukemia. The test showed strong association in measles and poliomyelitis, but did not indicate any association in acute leukemia. 3 tables. 9 references. (AA)

23. BORHANI, N. O., HECHTER, H. H.
The application of statistical methods in the analysis of blood pressure distribution curves.
Ann NY Acad Sci 126:758-66, 6 Aug 65.

823. CHIANG, C. L.
IV. On the formula for the variance of the observed expectation of life—E. B. Wilson's approach.
Hum Biol 38:318-9, Sep 66.

Several methods have been suggested for deriving the formula for the variance of the observed expectation of life—Wilson (1938), Irwin (1949), and Chiang (1960). Dr. Wilson's approach was quite ingenious and a minor error in reasoning can easily be corrected. In memory of Dr. Wilson, the author takes this opportunity to use his method to derive the correct formula. Seven equations show these calculations. 4 references. (Ed)

824. DAVID, H. A., NEWELL, D. J.
The identification of annual peak periods for a disease.
Biometrics 21:645-50, Sep 65.

Totals of the occurrence of a disease for six consecutive months are contrasted with totals for the remaining months. Often the line of demarcation between the 2 halves is arbitrary and the test will then be based on the largest difference which can be constructed. This paper was compiled from tests made at Virginia Military Academy, Blacksburg, Va., and Newcastle upon Tyne, England. 3 references. 2 tables. (Ed)

825. DROSNESS, D. L., REED, I. M., LUBIN, J. W.
The application of computer graphics to patient origin study techniques.
Pub Health Rep 80:33-40, Jan 65.

One of the first concerns in health facility planning is analyzing the geographic area relating to the hospital-patient service relationship. A mapping technique has been developed in the field of urban planning using a general computer program of printing numbers or symbols within a stated geographic area. Instructions are fed to a computer, requesting a printout at specified coordinates which have been described previously to the machine. The computer is thus able to produce numbers which fall in appropriately designated places; then outlines of the boundary areas are superimposed to form a map. 1 table. 5 figures. References. (AEd)

826. ELVEBACK, L., VARMA, A.
Simulation of mathematical models for public health problems.
Pub Health Rep 80:1067-76, Dec 65.

The increasing availability of large electronic computers has given impetus to use of simulation of stochastic models to obtain information, otherwise inaccessible, on problems in public health and medical sciences. Many examples can be cited from the literature to illustrate the broad range of problems for which this statistical method proves useful and efficient. One example, taken from the Reed-Frost epidemic model, is given in detail, from the assumptions relating to the real-life situation to the mathematical model. Distributions of total number of cases and duration for repeated epidemics were obtained by computer simulation. An extension of this model was used in a study of viral interference between competing agents. 1 table. 37 figures. 27 references. (AA)

827. ERPENBECK, F.
The possibility of an immediate comparison of general fertility rate with the total fertility index and its practical usefulness. Shown by the example of fertility development in the German Democratic Republic.
Z Ges Hyg 12:790-802, Sep 66. (GER)

Proposes two new measures based on relationships between the general fertility rate and the sum of age-specific fertility rates, dividing the latter by 30 for convenience. The "degree of favorability" of the age composition of women of child-bearing age is the difference between these rates, and the "realization effect" of the age composition is the quotient of these rates. 2 tables. 7 abstracts. 12 references. (AEd)

828. FORSTER, F.
Use of a demographic base map for the presentation of area data in epidemiology.
Brit J Prev Soc Med 20:165-71, Oct 66.

Presenting disease rates on the conventional geographical base map does not allow for local population differences. Development of the demographic map offers possibilities for relating disease rates both to local populations at risk and to geographic position. In an attempt to achieve these effects, age-sex specific cartograms were developed for Scotland based on 1961 census figures. Their construction is described and, by presenting the same mortality data on both the cartogram and the geographic base map, an attempt is made to indicate the advantage of the former over the latter for the presentation of area data in epidemiology. 1 table. 4 figures. 3 references. (AA)

829. GITTELSOHN, A., KINCH, S.
Applications of life table analysis and automatic computer selection of population subgroupings for cardiovascular epidemiologic studies.
Ann NY Acad Sci 126:767-78, 6 Aug 65.

Two issues are discussed: Data processing methods from the standpoint of computers, and measuring disease risk in population subsets followed over time by life table methods. 6 tables. 3 references. Appendix. (Ed)

830. GREGORY, I.
Retrospective data concerning childhood loss of parent. I. Actuarial estimates vs. recorded frequencies of orphanhood.
Arch Gen Psychiat (Chicago) 15:354-61, Oct 66.

Two methods one presented for estimating expected frequencies of parental death during childhood of psychiatric patients. Both involved the same adjustments to crude frequencies computed from U.S. generation life tables. The short method, based on grouped parental ages and median year of birth, yielded results that corresponded closely with those of the longer method based on summation of individual probabilities. No significant differences were found between the observed and expected frequencies of parental death during the childhood of the 321 psychiatric patients in the present study. 5 tables. 21 references. (AEd)

831. GREGORY, I.
Retrospective estimates of orphanhood from generation life tables.
Milbank Mem Fund Quart 43:323-48, Jul 65.

In the U.S., there are no direct census estimates of the frequency of orphanhood in the general population, and estimates from survey samples have apparently reflected underreporting. Generation life tables can determine exact probabilities of orphanhood according to year of birth, as well as age, sex, and race of the parents. Actuarial estimates were developed for children born in Minnesota in 1939 attaining the age of 15 years in 1954 and compared with those reported by a sample of 11,329 Minnesota children in ninth grade, attaining a mean age of 15 years in 1954. The latter data are also examined in relation to parental socioeconomic status and number of siblings. 6 tables. 32 references. (AEd)

832. GURALNICK, L., JACKSON, A.
An index of unnecessary deaths.
Pub Health Rep 82:180-2, Feb 67.

The number of excess deaths expressed as a percentage of the number of deaths occurring in a group is the index of unnecessary deaths (UDI). The excess is the difference between the number of deaths occurring in the study population and the number of deaths that occurred in the most favorable comparable population. Applications are made to death rates in North Dakota and Texas, 1959-61, using the average of the five lowest death rates observed in states in that time period for each age group and by cause of death as the most favorable. For example, in Texas, 28% of the deaths could have been prevented, and the greatest percent of excess deaths occurred from tuberculosis. It is concluded that there are still gross inequalities in mortality throughout the U.S. 5 tables. 1 reference. (Ed)

833. IPSEN, J., FEIGL, P.
Appropriate scores for clinical and public health variables.
Amer J Public Health 56:1287-95, Aug 66.

Discussion of a procedure which deals with a situation where disease frequency or severity can be expressed by several variables, and one is chosen or several are weighted for analysis. This means some loss of informa-

tion and the question arises concerning the magnitude of the loss. Appropriate scoring for several dependent variables is discussed and three examples illustrate its application. 5 references. Appendix. (AA)

834. JOOSSENS, J. V.
The parameters of atherosclerosis mortality.
Acta Cardiol (Brux) Suppl 11:145-167, 65.

Presents a method for estimating the separate contributions of genetic and environmental factors to any set of age-specific death rates. The method is based on the observations that: (1) for many chronic diseases the age-specific death rates are exponential functions of age within certain limits, and (2) for any particular cause of death there is approximate isomortality at age 82. Biological interpretations of the method and applications to data on atherosclerotic disease in many countries are given. 10 tables. 6 figures. 8 references. (Ed)

835. KITAGAWA, E. M.
II. Theoretical considerations in the selection of a mortality index, and some empirical comparisons.
Hum Biol 38:293-308, Sep 66.

Review of various mortality indexes elaborated in detail elsewhere (Kitagawa, Demography I 1964). Some empirical tests were made of the extent to which the use of alternative indexes can influence the size and pattern of mortality differentials obtained. The present account is limited to a brief summary of the theoretical considerations and some evaluation of empirical results based on different mortality indexes. Mortality differentials measured by alternative standardized indexes can vary significantly. Preliminary results emphasize that no single summary index can be substituted for a comparison of age-specific death rates. 4 tables. 4 figures. 3 references. (Ed)

836. KURIHARA, N., TAKANO, A.
Computing method for the relative survival rate for cancer patients.
Jap J Cancer Clin 11:628-32, Aug 65. (JAP)

No English summary.

837. KURTZKE, J. F.
On statistical testing of prevalence studies.
J Chronic Dis 19:909-22, Aug 66.

Three tests of statistical significance will suffice for an assessment of data from studies of prevalence or incidence of disease, and should usually be applied, as appropriate, by authors of papers. These tests, for which illustrations are given, are: (1) confidence limits, for random variation of an observed rate, (2) an adaptation of the Chi-square contingency test, for differences between distributions, and (3) the specimen rank-order correlation coefficient, for association between variables. 2 tables. 4 figures. 44 references. (Ed)

838. MANTEL, N.
The detection of disease clustering and a generalized regression approach.
Cancer Res 27:209-20, Feb 67.

The problem of identifying subtle time-space clustering of disease, as may be occurring in leukemia, is described and reviewed. Published approaches, generally associated with studies of leukemia, not dependent on knowledge of the underlying population for their validity, are directed towards identifying clustering by establishing a relationship between the temporal and the spatial separations for the $n(n-1)/2$ possible pairs which can be formed from the n observed cases of disease. Improvements in the procedure are suggested as well as discussion of application to other situations. 4 tables. 13 references. (AEd)

839. MAZUR, D. P.
The graduation of age-specific fertility rates by order of birth of child.
Hum Biol 39:53-64, Feb 67.

A general solution to the problem of graduating age-order specific fertility rates is presented here in the form of equations applicable to situations where only rates of total fertility by order of birth of child are available, or where the data are gathered in very broad age categories. Theoretical considerations presuppose knowledge of certain basic parameters, such as initial, terminal, and modal age of fertility in a population of women. The graduation of rates to any desired degree of specificity by age of women and up to the 6th and higher orders of birth can best be done on the basis of period specific rates and, under certain conditions, with generational measures. In addition, the model can serve as an heuristic device from which deviations in actual data can be measured. The results of graduation are illustrated numerically on the basis of the natality data for Guatamala, as reported in the United Nations Demographic Yearbook. 3 tables. 7 references. Appendix. (AEd)

840. MCCARTHY, P. J.
Replication: An approach to the analysis of data from complex surveys.
Vital and Health Statistics. Series 2, No. 14, Apr 66.

Among the estimating schemes for variances of estimates from complex surveys in recent use is a half-sample pseudoreplication technique, described in detail. It involves subsampling a parent sample in such a way that 20-40 pseudoreplicated estimates of any specified statistic are produced, with the precision of the corresponding statistic from the parent sample being estimated from the variability among the replicated estimates. A system for controlled choice of a limited number of pseudoreplicates is presented such that for some classes of statistics the chosen small number of replicates has a variance algebraically identical with that of all possible replicates of the same character within the parent sample, and the same expected value as the variance of all possible replicates of the same character for all possible parent samples of the same design. Illustrations of the technique and guides for its use are included. Tables. (AEd)

400. MENOTTI, A., NATALE, M., PUDDU, V.
Isomortality for cardiovascular diseases. Attempted application to Italian areas of a new mortality study procedure.
Cuore Circ 50:1-27, Feb 66. (IT)

841. MILLER, D. A.
'Significant' and 'highly significant.'
Nature (London) 210:1190, 11 Jun 66.

Frequently, in scientific papers, one finds the terms "insignificant" "significant" "highly significant" used. A table of symbols and abbreviations is given here, as a suggestion in clarifying and simplifying the use of these often used terms. 1 table. (Ed)

842. RAO, B. S.
Mutual dependence of epidemiological variables in the causation of disease (A view point).
Indian J Public Health 10:63-5, Apr 66.

Diseases are brought about by a few specific causes rather than by a multiplicity of factors. Most of the factors (multiple causes) associated with disease may not be necessarily causal. After careful study, it may be possible to distinguish the few primary causes of a disease and to differentiate them from the secondary factors (that effect the primary causes rather than the disease) as well as from those that by virtue of their dependence on the primary or secondary factors are the mere accompaniments. Discussed are eight epidemiological factors (age, sex, occupation, marital status, climate, place, time, and socio-culture) with respect to their inter-dependence, inter-relationship, and influence upon each other. 4 references. (AEd)

843. ROGOT, E., GOLDBERG, I. D.
A proposed index for measuring agreement in test-retest studies.
J Chron Dis 19:991-1006, Sep 1966.

This paper is concerned with measuring agreement in test-retest studies of reliability. Discussion is confined principally to the 2 x 2 case. The commonly used index of agreement is calculated as the number of subjects identically classified by both test and retest divided by the total number of individuals classified. The inadequacies of this index (referred to as the index of 'crude agreement' and denoted by A) are discussed. In light of the deficiencies of A, an index of 'adjusted agreement' denoted by A_1 is proposed. A_1 yields the very useful result that expected agreement (based on observed marginals) is always 1/2 or 50%. The two indexes A and A_1 are compared by utilizing numerical examples and by application to published studies (including data from the National Health Survey). The limitations of A_1 are discussed. A test of significance for the 2 x 2 case, and the extension of A_1 to the n x n case are considered. 11 tables. 3 figures. 6 references. (AA)

844. ROSENBERG, H. M.
Seasonal adjustment of vital statistics by electronic computer.
Pub Health Rep 80:201-10, Mar 65.

Monthly birth, marriage, and death rates have exhibited seasonal patterns. A method was developed by the Bureau of the Census, using an electronic computer, to establish the nature of these seasonal patterns and to remove the identified seasonal component from time series of monthly data. The method is basically an adaptation of the ratio-to-moving-average method, for seasonally adjusting time series of economic data. The application is useful in the retrospective and current analysis of vital statistics. Good results are indicated for birth and marriage data, but not entirely suitable for mortality statistics. Continuing research should yield better approximations of the trend-cycle and an adequate method for isolating the epidemic component of mortality time series. 3 tables. 8 figures. References. (AEd)

845. SHEPS, M. C.
On the person years concept in epidemiology and demography.
Milbank Mem Fund Quart 44:68-91, Jan 66 Pt. 1.

An investigation into the behavior, under defined conditions, of the "exposure time" or "person years" indices that are often used to estimate risks. The behavior of the index "occurrences per person year of exposure" has been studied through a mathematical model. Numerical illustrations of the results, obtained by exact calculations, by a simulation program, and from approximate expressions are presented. The findings reported suggest that conclusions that have been based on this index in various studies may be subject to some question. Investigators may find it necessary to re-evaluate data on which such conclusions have been based. 4 tables. 2 figures. 21 references. Appendix. (AEd)

434. SIGURJONSSON, J.
Index rates for comparing the importance of arteriosclerotic and degenerative heart diseases as a cause of death.
Amer J Med Sci 250:395-401, Oct 65.

846. SPIEGELMAN, M., MARKS, H. H.
I. Empirical testing of standards for the age adjustment of death rates by the direct method.
Hum Biol 38:280-93, Sep 66.

Description of a series of tests to select a standard for the computation of age-adjusted death rates by the direct method in planning the mortality tabulation for the series of Vital and Health Statistics Monographs sponsored by the Statistics Section of American Public Health Association. Without regard to other considerations, for the problem at hand the logical choice of a standard would have been the age distribution of population in the census of 1960 because the extensive tabulation program was based upon deaths for the surrounding period 1959-61. It is clear that the choice of this standard in preference to the censuses of 1940 or 1900 would affect the levels of the age-adjusted rates in considerable degree. Since a substantial volume of age-adjusted rates is already available on the 1940 census of population reports, it was decided to use the same standard for the 1959-61 tabulations. 4 tables. 1 figure. 1 reference. (Ed)

847 STOCKWELL, E. G.
Patterns of digit preference and avoidance in the age statistics of some recent national censuses: A test of the Turner hypothesis.
Eugen Quart 13:205-8, Sep 66.

Turner (1958) suggested that persons will tend to overreport digits that are multiples of the divisors of the base of the number system while under-reporting those digits which are not. In spite of exceptions and in spite of variation in the extent of digit preference and avoidance among several countries considered here, it can be concluded that the data confirm Turner's hypothesis. Future tests of this hypothesis should seek to determine if the expected pattern with regard to census age statistics characterizes all segments of the various populations, or if there are more or less significant differences associated

with such variables as sex, color, or urban-rural residence. In addition, it might be worthwhile to see if Turner's hypothesis is substantiated by age data reported on birth and death certificates. 2 tables. 8 references. (Ed)

848. STOCKWELL, E. G.
Use of socioeconomic status as a demographic variable.
Pub Health Rep 81:961-6, Nov 66.

Analysis of demographic correlates (fertility, mortality, migration) of socioeconomic status (SES) among 169 towns in Connecticut. Levels of fertility and migration tend to be positively associated with SES, whereas levels of mortality are negatively correlated with all the SES indexes. These demographic measures are not necessarily related in any consistent fashion to all the component variables (occupation, education, income) of SES. Social and economic factors are major determinants of demographic behavior. The way in which SES is defined (e. g. in terms of income as opposed to education) will largely determine the nature and extent of any resulting relations. That is, the failure to observe consistency in the various socioeconomic relations discussed stems from the many definitions of socioeconomic status. 1 chart. 25 references. (Ed)

849. TRUETT, J., CORNFIELD, J., KANNEL, W. B.
A multivariate analysis of the risk of coronary heart disease in Framingham.
J Chronic Dis 20:511-24, Jul 67.

The dependence of the 12-year probability of developing coronary heart disease in Framingham on 7 risk factors has been investigated, using discriminant functions. Despite marked departures of the actual distributions from multivariate normality, the description provided by the theoretical risk function agrees well with the actual data. The difference in incidence between highest and lowest deciles is 30-fold for men and 70-fold for women. Relative differences in incidence between highest and lowest deciles of risk are most marked at the younger age groups in both men and women. The most important risk factors, aside from age itself, are cholestrol, cigarette smoking, ECG abnormalities and blood pressure. Weight, while also a significant risk factor, has a considerably smaller effect than these four. 8 tables. 2 figures. 6 references. (AEd)

850. WALLACE, H. M., EISNER, V., DOOLEY, S.
Availability and usefulness of selected health and socioeconomic data for community planning.
Amer J Public Health 57:762-71, May 67.

This paper describes the availability of health and social indexes in San Francisco and compares 2 methods (plotting the data on maps and factor analysis) of determining their usefulness in the identification of high risk census tracts. In this report, the most useful health indexes of those available for study were inadequate prenatal care, fetal mortality, the incidence of prematurity, and the incidence of tuberculosis. The most useful socioeconomic indexes were low income, inadequate parental composition, school age, illegitimacy, and juvenile delinquency. Since 4 of these indexes are available in intercensus years, it is suggested that these 4 indexes can be used in post-census years in areas of rapid population change to supplement indexes derived at the time of the decennial census. 2 tables. 3 figures. 2 references. 2 appendices. (AEd)

851. WEINER, J. M., HOPKINS, C. E., MARMORSTON, J.
Use of correlation structure analysis in estimating survival benefit.
Ann NY Acad Sci 126:743-57, 6 Aug 65.

This paper presents a method of analyzing cumulative survival data which evaluates the effect of a principal experimental variate on survivals, separates out the influence of associated covariates, reveals the joint effect of various combinations of variates, and elucidates the structure of the interrelationships among the variates. An application is made to male patients who recovered from myocardial infarctions. The proposed method of gaining insight into the relationships among a set of measurements may be of interest to investigators working with multiple linear regression or discrimination and used to suggest or test hypotheses regarding underlying mechanisms. 3 tables. 3 figures. 43 references. 3 appendices. (AEd)

852. ZIPPIN, C., ARMITAGE, P.
Use of concomitant variables and incomplete survival information in the estimation of an exponential survival parameter.
Biometrics 22:665-72, Dec. 66.

This paper generalizes previous work of Feigl and Zelen, who assumed survival time of a chronic disease (e.g. cancer) patient to follow an exponential distribution. Expected survival time, the reciprocal of the parameter of the exponential is considered to be linearly related to a measure (concomitant variable) of the severity of the disease. The present paper extends the statistical model to permit maximum likelihood estimation of the parameters to the linear regression where not all patients in a followup study have died by the end of the study. For different study lengths the effect on the size of the asymptotic standard errors is determined, first assuming all patients to enter together, and next assuming entry at regular time intervals. Approximate standard errors are also obtained assuming uniform entry rate and small random variation in the concomitant variable. 4 tables. 1 reference. (AA)

B. EPIDEMIOLOGY

511. ABERNATHY, J. R., GREENBERG, B. G., WELLS, H. B.
Smoking as an independent variable in a multiple regression analysis upon birth weight and gestation.
Amer J Public Health 56:626-33, Apr 66.

853. BAKER, T. D.
Problems in measuring the influence of economic levels on morbidity.
Amer J Public Health 56:499-507, Mar. 66.

A survey of 66,000 persons in Taiwan to discover and measure the links between morbidity and economic level. Economic level may be measured by income, expenditure, or wealth. Definitions of morbidity and examples of cases are provided. Problems involved in studying the effect of economic level on morbidity are discussed. 2 tables. 36 references. (Ed)

325. DEANE, M.
Epidemiology of chronic bronchitis and emphysema in the United States. II. The interpretation of mortality data.
Med Thorac 22:24-37, 65

854. FEINSTEIN, A. R.
Clinical and intellectual causes of defective statistics for the prognosis and treatment of lung cancer.
Med Clin N Amer 51:549-62, Mar. 67

Contemporary statistical approaches to the prognosis and treatment of lung cancer are defective because the clinical features of patients are not specified in the correlated analysis. The statistical defects are based on staging that denotes structure but not function of the cancer, on therepeutic citations that omit the biologic significance of reasons for "inoperability," and on assessments of quantity but not quality in survival. Because of these omissions, the collected numerical data are often "statistically significant" but clinically and scientifically deficient. Specific techniques for correcting the defects are proposed. 3 tables. 11 references. (AEd)

665. FELDSTEIN, M.S.
A method of evaluating perinatal mortality risk.
Brit J Prev Soc Med 19:135-9, Jul 65.

855. GERTLER, M. M., WHITER, H.
Individual differences relating to coronary artery disease.
Ann NY Acad Sci 134:1041-5, 28 Feb 66.

A linear regression equation that utilizes several variables is potentially far superior to any single variable in selecting the coronary-prone individual. The best individual selector is height below the mean. This variable selects 78% of individuals, in contrast to serum cholesterol value one standard deviation above the mean which selects 59%. These two fall far below the entire group of variables when expressed in linear regression form, i. e. 92%. There is no concrete evidence from these data to support the view that blood pressure and cholesterol act synergistically to increase the risk rate of coronary artery disease. 1 table. 3 figures. 7 references. (AEd)

856. HAYNER, N. S., WATERHOUSE, A. M. AND GORDON, T.
The one-hour oral glucose tolerance test.
Vital and Health Statistics. Series 2, No. 3 Jul 63.

Response of middle-aged men to 100-gram and 50-gram doses of glucose given fasting and 1, 2, and 3 hours after meal. For large population studies the oral glucose tolerance test, the decisive diagnostic test for diabetes, is impractical. Participants in such surveys cannot be expected to come to the examination in a fasting state, nor to submit to a procedure lasting several hours and requiring a succession of vein punctures. This study examines 2 of the variables in the shortened and simplified procedures used in surveys which may alter glucose response from that obtained in a standard fasting test—the interval from the last meal to the start of the test and the dose of glucose given in the drink. 7 tables. (AEd)

598. KLEMETTI, A., SAXEN, L.
Prospective versus retrospective approach in the search for environmental causes of malformations.
Amer. J. Public Health 57:2071-5, Dec. 67.

375. KULLER, L., LILIENFELD, A., FISHER, R.
Quality of death certificate diagnoses of arteriosclerotic heart disease.
Pub Health Rep 82:339-46, Apr 67.

857. L'ELTORE, G., GALLONI, M., GUELI, I.
Statistical methodology in epidemiological reporting.
Lotta Tuberc 35:1065, Nov-Dec 65.

No English summary.

153. MIKKELSON, W. M., DODGE, H. J., DUFF, I. F.
Estimate of the prevalance of rheumatic diseases in the population of Tecumseh, Michigan, 1959-60.
J Chronic Dis 20:351-69, Jun. 67.

858. MONTOYE, H. J. EPSTEIN, F. H., KJELSBERG, M. O.
Relationship between serum cholesterol and body fatness. An epidemiologic study.
Amer J Clin Nutr 18:397-406, Jun 66.

Several indices of body fatness were utilized, including measurements of triceps and subscapular skinfold thickness, and relative weight (the ratio of observed over predicted weight, predicted weight being calculated from a regression of body weight on height, biacromial and bicristal diameters). A low but statistically significant relationship was found between serum cholesterol levels and body fatness, even at an early age and particularly among male subjects, Tecumseh, Michigan, study of 6,500 persons, aged 4 or older. 3 tables. 5 figures. 33 references. (AEd)

172. O'SULLIVAN, J. B., WILLIAMS, R. F.
Early diabetes mellitus in perspective. A population study in Sudbury, Massachusetts.
JAMA 198:579-82, 7 Nov 66.

859. OVCHAROV, V. K.
Selection of an area sample for the study of the morbidity of the population. (RUS)
Sovet Zdravookhr 13:3-11, 65.

No English summary.

176. PARRISH, H. M., PAYNE, G. H., ALLEN W. C.
Mid-Missouri stroke survey: A preliminary report.
Missouri Med 63:816-8 Passim, Oct 66.

614. ROUQUETTE, C.
A French prospective survey on congenital malformations. (Survey of the Institut De La Sante Et De La Recherche Medicale.)
Concours Med 87:6443-4, 6447-8, 6 Nov 65. (FR)

860. SHEEHE, P. R.
Combination of log relative risk in retrospective studies of disease.
Amer J Public Health 56:,1745-50, Oct 66.

Retrospective data may be classified in 2x2 tables. Each table for a background characteristic (e.g. age) is divided into those with and without disease (e.g. acute leukemia), classified by those with and without a focal characteristic (e.g. radiation exposure). The natural log of the ratio of the product of the diagonals is the estimate of log relative risk. A weighted average, over all 2x2 tables (e.g. all age groups), is obtained by weighting each relative by its inverse variance. Statistical properties of this measure are shown to be similar to those of the standardized difference between proportions. The combination of log relative risk is preferred because of its direct connection with prospectively stated hypotheses (by treating incidence or prevalence of disease as a consequence of pre-existing characteristics) and prospective studies are usually based on leads from retrospective data. 4 figures. 6 references. (Ed)

861. VOORS, A. W.
Data storage, retrieval, and re-use in epidemiologic studies.
Pub Health Rep 81:1092-4, Dec 66.

Each original epidemiologic study can serve to test some hypothesis and to provide a body of primary data for use in any applicable future test. Re-use of epidemiologic data can be an economical and useful step in the scientific process. Re-use can be promoted by the adoption of an inexpensive method of data storage, which includes some redundancy to permit detection of copying errors, and by the use of an existing specialized library service to provide accessibility. In a sample of 30 epidemiologic papers, the data of all but 4 had a bulk which remains within the practical limitations inherent in such library service. 2 tables. (AA)

459. WYNDER, E. L., HYAMS, L., SHIGEMATSU, T.
Correlations of international cancer death rates. An epidemiological exercise.
Cancer 20:113-26, Jan 67.

862. YANASE, T.
Use of official records for genetic and epidemiologic studies.
Jap J Hum Genet 10:60-71, Aug 65.
(Japanese Title: Jinrui Idengaku Zasshi.)

Comments on limitations as well as reliability of information in official records, Japan. These can be of value for a number of genetic and epidemiologic studies. In practice it is desirable that a system be established specifically for investigation of the records. This will greatly facilitate the recompilation of information from the records and will ensure that the specific research does not impose too heavy a burden on local administrative offices. Utility of the records and efficiency of a given investigation will be much enhanced by the development of a system of linking information from records that ordinarily are kept entirely separate from each other. Finally, the need to preserve privacy of the individual must be remembered. 6 tables. 19 references. (AEd)

C. STUDY DESIGN

863. ANONYMOUS
Development and maintenance of a national inventory of hospitals and institutions.
Vital and Health Statistics. Series 1, No. 3, Feb 65.

Description of the Master Facility Inventory which is the universe for health record surveys. It includes all facilities or establishments which meet the criteria of the survey. The program of the Master Facility Index maintains a list of names and addresses and collects information on size and type of these facilities. This information is used for sampling purposes and also for statistics on the availability of health facilities in the U.S. 11 tables. (Ed)

864. ANONYMOUS.
Epidemiological methods in the study of chronic diseases. Eleventh report of the WHO Expert Committee on Health Statistics.
WHO Techn Rep Ser 365:1-31, 67

Discussion of methods including disease registers, "record linkage", and "at risk" registers. Types of statistics related to health routinely collected (demographic, economic, geological, geographical, meteorological, and agricultural) are described. Health hazards, and the value of population laboratories are noted. Recommendations are made. (Ed)

865. ANONYMOUS.
Health survey procedure.
Vital and Health Statistics. Series 1, No. 2, May 64.

The Health Interview Survey is a continuous sampling and interviewing of the civilian, noninstitutional population for health and related information since July 1957. Emphasis is upon the social dimensions of morbidity; morbidity is measured along an axis for which the scale is the terms of the impact that the morbidity has upon the lives of the people concerned. Illustrations of the questionnaires and definitions of terms and concepts employed are given. Text tables. (Ed)

866. ANONYMOUS.
Interview responses on health insurance compared with insurance records.
Vital and Health Statistics. Series 2, No. 18, Aug 66.

A methodological study to measure the accuracy of information on health insurance coverage obtained in health interviews. The study plan provided for checking information obtained in a subsample of households in the Current Population Survey against records maintained by insurance organizations. Findings and problems encountered in the conduct of the study, and the characteristics of record-check studies in general are discussed. 8 tables. (AEd)

867. ANONYMOUS.
Origin, program, and operation of the U.S. National Health Survey.
Vital and Health Statistics, Series 1, No. 1, Reprinted Apr. 65.

A description of the developments leading to enactment of the National Health Survey Act, and a summary of the policies, initial program, and operation of the survey. Text tables. (AA)

868. ANONYMOUS.
Plan and initial program of the Health Examination Survey.
Vital and Health Statistics. Series 1, No. 4, Jul 65.

The Health Examination Survey is a part of the program of the U.S. National Health Survey. The first cycle consists of a health examination of a probability sample of the adult, civilian, noninstitutional population of the U.S. Other cycles will follow dealing with different types of examinations or age groups. The statistical design, pattern of examination, and field procedures are given. Text tables. (AEd)

869. ANONYMOUS.
Plan, operation, and response results of a program of children's examinations.
Vital and Health Statistics. Series 1, No. 5, Oct 67.

The second program of the National Health Examination Survey focused on factors related to growth and development of the nation's noninstitutionalized children, ages 6-11, obtained through physical and dental examinations and psychological tests. Describes development and operation of the survey including steps taken to reduce measurement error, and discusses factors related to response rates. 96% of the 7,417 children in the sample were examined. The lowest response at any location was 90%; at 2 locations it was 100%. 5 tables. (AEd)

870. ANONYMOUS
Sampling methods in morbidity surveys and public health investigations. Tenth report of the WHO Expert Committee on Health Statistics
WHO Techn Rep Ser 336:1-31, 66.

Purposes and uses of sampling techniques in morbidity surveys and public health investigations are reviewed, and planning of large scale sample surveys is outlined in detail. Technical aspects of sample design are explained and the methods described. Some statistical theory has been developed for estimation of the likely magnitude of sampling error. A principal consideration in choice of sample design is to ensure that a required precision is achieved at a minimum cost. Methods of analysis and evaluation and reporting of results of sample surveys are given. The application of automatic data processing systems and the manual on sampling methods in morbidity surveys and public health investigations are described. (Ed)

871. ANONYMOUS.
The use of twins in epidemiological studies. Report of a WHO meeting of investigators.
Acta Genet Med (Roma) 15:111-28, Apr 66.

Report of WHO meeting of Investigators on Methodology of Twin Studies held in Geneva, 1965. WHO mailed a questionnaire to "twin researchers" throughout the world, asking for details of their studies. A wide

range of studies was reported including those from physiological and environmental points of view. 5 types of twin samples, organization and maintenance of twin registers, and presentation and analysis of twin data are given. Studies of twins can provide useful information on the contribution of genetic and environmental components of disease. There is a need for a centralized agency such as WHO which could act as a clearinghouse for information. 3 tables. 8 references. (AEd)

642. ABERNATHY, J.R., GREENBERG, B. G., DONNELLY, J. F.
Application of discriminant functions in perinatal death and survival.
Amer J Obstet Gynec 95:860-7, 15 Jul 66.

872. ACHESON, E. D.
Medical record linkage—the method and its applications.
Roy Soc Health J 86:216-20, Jul-Aug 66.

A system of linked health records brings together selected biological data for a whole population from birth to death. A master file must be set up containing all information and carrying enough information to differentiate one person's record from another. The computer and its applications are invaluable in this effort. The general, as well as the specific, application of integrated systems of health records is given, and its value in medical research outlined. A national system of linked records might be organized in three tiers. The basic unit would be the Area Health Information Center which would feed data into a Central National Library and Index. 2 figures. 15 references. (Ed)

873. ANDERSON, D. O.
The response of physicians to a mailed questionnaire: A study in Ontario, Manitoba and British Columbia.
Canad Med Ass J 95:1301-6, 17 Dec 66.

Acceptable and high response rates are obtainable by mailed questionnaires to elicit clinical data from physicians if the investigator's concern is demonstrated by sending the request in successive waves to the diminishing group of non-respondents. In the study described, a 90.6% response rate was produced by three waves: a first call mailing, a registered re-mailing, and a registered re-mailing including a personal letter. A variation by province and month of death could not be explained fully, but no relationship between response and certain characteristics of replying physicians could be demonstrated. The generous cooperation of Canadian physicians in a bonafide research project is, therefore, striking. 1,585 questionnaires were sent; all but 149 were returned. 3 tables. 3 figures. 12 references. (AEd)

874. ANDERSON, D. O., FERRIS, B. G., Jr., Davis, T. W.
The Chilliwack Respiratory Survey, 1963: Part 1. Methodology.
Canad Med Ass J 92:899-905, 24 Apr. 65.

To ascertain the prevalence of chronic respiratory disease in residents of a rural town and to determine the relative importance of tobacco smoking and air pollution, a survey was conducted of 726 persons living at Chilliwack, British Columbia, in May and June, 1963. Over 95% of a random sample of adults were interviewed and performed simple tests of respiratory function. The sample was selected from a commercial census. Analysis of demographic characteristics of the sample indicated that the group, aged 25-74 years, was reasonably representative for detailed study of chronic respiratory disease. Techniques and personnel were chosen to be as similar as possible to those in a comparable survey, 1961, in Berlin, New Hampshire. 7 tables. 1 figure. 20 references. (AEd)

875. ASKANAS, Z., CZERWINSKA, S., LISZEWSKA, D.
A method for the selection of a representative sample for the investigation of the level of arterial pressure in large population groups.
Pol Tyg Lek 20:830-4, 7 Jun 65. (POL)

Description of a method of selecting representative samples for investigation of distribution of arterial pressure in large populations. The applied schema of limited stratal chance selection from lists of names of the studied population ensured random selection of the sample, confirmed by means of a test of series. Also, analysis of purposefulness of annual stratification of the population concluded that stratification according to 5-year periods is quite satisfactory for the purpose of an epidemiological study. 4 tables. 18 references. (AEd)

876. BALAMUTH, E.
Health interview responses compared with medical records.
Vital and Health Statistics. Series 2, No. 7, Jul 65.

A methodological study largely concerned with relationship between information from 2 sources on chronic illness in a defined population: (1) reports from physicians of the Health Insurance Plan of Greater New York on patients who sought care during a 12-month period, and (2) reports, at the end of this period, of interviews of these patients and their families by the National Health Survey. Comparison is concerned with whether conditions diagnosed by physicians are reported by respondents on household interview. 32 tables. (AEd)

877. BIRNBAUM, Z. W. and SIRKEN, M. G.
Design of sample surveys to estimate the prevalence of rare diseases: three unbiased estimates.
Vital and Health Statistics. Series 2, No. 11, Oct 65.

A stratified random sample for a survey of medical sources to estimate prevalence of diagnosed cases of a rare disease in the population. Medical sources are stratified by criteria, such as specialty of physician and service and size of hospital, presumed to be related to probability of the source treating patients with the particular disease. An unbiased estimate of the number of diagnosed cases based on patients reported by a sample of medical sources presents a problem since it is not uncommon for patients with rare diseases to have been treated by more than one medical source. Three formulas are presented for deriving unbiased estimates under these circumstances. Text tables. (AEd)

878. BJERKEDAL, T.
Principles and sources of failure in retrospective studies on the etiology of disease.
T Norsk Laegeforen 86:841-6, 1 Jun 66. (NOR)

A brief discussion of the main principles and sources of error in retrospective investigations is presented. Problems of interpretation of results of such investigations are discussed in some detail. It is stressed that one should, whenever possible, aim at a strict experimental design in epidemiological investigations in general. 3 tables. 9 references. (AA)

879. BLACKBURN, H., PARLIN, R. W.
Antecedents of disease. Insurance mortality experience.
Ann NY Acad Sic 134:965-1017, 28 Feb 66.

A review of findings and a bibliography of mortality investigations in insured populations from the literature in English. Advantages of using insured persons to study mortality include the mechanism for followup and the numbers of persons involved. Disadvantages include the possible bias from "selective factors operating in the insured population and in the initial risk-underwriting process." 37 tables. 4 figures. 68 references. (Ed)

880. BORSKY, P. N., FELDMAN, J. J.
Measurement of personal health expenditures.
Vital and Health Statistics. Series 2, No. 2, Jun 63.

Development and testing of a brief questionnaire on family medical and dental expenditures for use in the Health Interview Survey. 7 tables. (AA)

881. BROWN, A. M., ALTMAN, I., THOMPSON, D. J.
Participation of hospitals in the pilot study of the hospital discharge survey.
Vital and Health Statistics. Series 2, No. 19, Oct 66.

A study, in 1964, of feasibility of a Hospital Discharge Survey, concluded that such a survey was practicable, and would be well received by hospitals in the sample. The survey commenced in 1965 as a pilot study with the intent of testing various procedures in 84 hospitals, involving personnel, forms, and suitability of quality checks. Only 2 of the 84 hospitals asked to participate failed to do so. Unreserved cooperation was obtained from 74; qualified cooperation from the remaining 8. Tables. (AEd)

882. BRYANT, E., BAIRD, J. T., JR.
Cooperation in health examination surveys.
Vital and Health Statistics. Series 2, No. 9, Jul 65.

A major part of the U.S. National Health Survey program is the collection of health data and related facts in a continuous household interview survey. The design and methodology of a survey of attitudes about cooperation in an examination survey are described and a summary of findings presented. 71% of the noninstitutional population, ages 18 and over, may be willing to have a health examination if time and place are convenient. Respondents in the household interview were more reluctant to commit others than themselves to a health examination. Favorable response declined with increasing population size. Persons in the Northeast and persons over 45, especially over 65, were less willing to cooperate. Extreme upper and lower income groups showed less cooperation than middle income groups. Nonwhite persons indicated much more cooperation than did whites. 19 tables. (Ed)

883. CANNELL, C. F., FOWLER, F.
Comparison of hospitalization reporting in three survey procedures.
Vital and Health Statistics. Series 2, No. 8, Jul 65.

Study of alternative survey methods for collection of hospitalization data from household respondents. Procedure A, the control, used the standard health interview questionnaire and procedures. Procedure B was a revised interview schedule which was followed by a mail form in which any information about hospital stays that had been overlooked in the interview (which preceded the form) was to be recorded by the respondent. Procedure C eliminated questions about hospitalizations from the interview; the requested information was to be entered on a self-administered form which was given to the respondent by the interviewer at the close of the interview. The pilot investigations, the sample design, assignment of interviewers, editing, matching, and coding are described. Comparison of underreporting in the 3 procedures by characteristics of the same person is given with tables showing the number of hospital episodes underreported. 18 tables. (Ed)

884. CEDERLOF, R.
Register of twins. Preliminary report.
Nord Hyg T 45:63-70, 64.

A preliminary account of the setting up of a register of all same-sex twins born in Sweden, 1886-1925, and still alive. To date 98% of 41,000 pairs born during this period have been traced; of these, both twins are still alive in over 13,000 pairs. Reported are preliminary results with respect to smoking habits and urban or rural residence for various groups selected by sex and zygosity, based on the 10,500 pairs of respondents. 1 table. 5 figures. 2 references. (AEd)

885. CHASE, G., KLAUBER, M. R.
A graph of sample sizes for retrospective studies.
Amer J Public Health 55:1993-6, Dec 65.

A guide for rapid estimates of sample sizes for retrospective studies. In retrospective studies, a group with a disease and a group of well controls are examined for the presence or absence of a factor which possibly may be associated with the occurrence of the disease. Attributes of biases that may enter retrospective studies can be compared with those of prospective studies. In the latter, a group with the factor and a group without the factor are followed for a period of time and are observed for occurrence of the disease. Proposed are methods for determining adequate sample sizes for a test of association in a retrospective study. 3 tables. 1 figure. 9 references. (AEd)

886. FOX, J. P., ELVEBACK, L. R., SPIGLAND, I.
The virus watch program: A continuing surveillance of viral infections in metropolitan New York families. I. Overall plan, methods of collecting and handling information and a summary report of specimens collected and illnesses observed.
Amer J Epidem 83:389-412, May 66.

The Virus Watch (VW) consisted of continuing surveillance of family groups for infection with viruses recoverable in cell cultures. Index persons in each family contributed respiratory and fecal specimens for virus isolation on a regular bi-weekly schedule. VW families resided on Shelter Island (SHI), or in Stuyvesant Town (ST). Surveillance began in both areas in 1961 and continued through 1963 on SHI and 1965 in ST. VW family members recorded 4,262 illnesses of possibly viral nature (common childhood diseases excluded) for an average of 3.8 per person year. Special problems encountered and some of the solutions have been described. These include recruitment and retaining of families without tangible reward, collection of repeated adequate blood specimens, and relating the infection and illness experience of the VW families to that of the larger communities in which they resided. 8 tables. 4 figures. 51 references. (AEd)

887. FRIEDMAN, G., KANNEL, W. B., DAWBER, T. R.
An evaluation of followup methods in the Framingham Heart Study.
Amer J Pub Health 57:1015-24, Jun 67.

A 10-year followup of a sample of 5,127 adults in Framingham, Massachusetts, since 1949 to evaluate the sources of data used to diagnose coronary heart disease (CHD). Biennial examinations of the subjects provided diagnoses for 3/4 of the cases of CHD, and 1/2 would have been missed without these examinations. Hospital records and death certificates exaggerated male predominance of cases. Although each source gives a distorted view of the clinical spectrum of the illness, the association of CHD with age, blood pressure, serum cholesterol, relative weight, and cigarette smoking, using the cases from each source, closely resembled that found when all cases were studied. 5 tables. 7 references. (AEd)

888. FRIEDMAN, G.D., KANNEL, W. B., DAWBER, T. R.
Comparison of prevalence, case history and incidence data in assessing the potency of risk factors in coronary heart disease.
Amer J Epidem 83:366-78, Mar 66.

Although more efficient than longitudinal studies, prevalence and case history studies have been considered inferior because of biases such as under-reporting of cases of short duration. Estimates of relative risk associated with 4 established factors of risk in coronary heart disease (male sex, hypertension, age, and serum cholesterol level) were derived from prevalence and case history studies on the 1st and 6th biennial examination of the Framingham Heart Study and compared with the estimates of risk from the 10-year incidence study. Good agreement among methods was noted for all except serum cholesterol which failed to show the expected serum gradient in prevalence studies. Reasons for this are discussed. 6 tables. 2 figures. 10 references. (AEd)

889. GORDON, T.
Three views of hypertension and heart disease.
Vital and Health Statistics. Series 2, No. 22, Mar 67.

Comparison between diagnoses of hypertension and heart disease made by the Health Examination Survey and those reported on a self-administered medical history and by the personal physician during 1960-62. The examination yielded more cases of heart disease and hypertension than the history or the physician reports. Hypertension symptoms reported on the medical history were not associated with the subsequent hypertension diagnosis on examination. Reports of heart disease and hypertension by a personal physician, while more conservative than the diagnoses by the survey examination, were likely to be corroborated by it. 29 tables. (AEd)

890. GORDON, T., MILLER, H. W.
Cycle I of the Health Examination Survey: sample and response, U.S., 1960-1962.
Vital and Health Statistics. Series 11, No. 1, Apr 64.

The first of a series of publications of results of the "first cycle" of the Health Examination Survey describing sampling procedures and estimating techniques employed, similarity between the sample and the universe, and impact of nonresponse. 8 tables. (AEd)

891. HESS, I., SRIKANTAN, K. S.
Some aspects of the probability sampling technique of controlled selection.
Health Serv Res 1:8-52, Summer 66.

Data for the 1961 universe of nonfederal, short term general medical hospitals in the U.S. are used to illustrate application of estimation and variance formulas for controlled selection, the probability sampling technique developed by Goodman and Kish. Some advantages of this sampling technique are discussed and a controlled selection model is described. Comparisons are made between the variance of multiple stratification and those of controlled selection. The report is believed to describe the first experience in programming controlled selection for an electronic computer. Steps in the preparatory work, whether for the manual or for the computer operation, are outlined. Some suggestions for continued program developments are made. Table. 24 references. (AEd)

95. HINKLE, L. E., JR.
The use of a large industrial population to study the effects of social and behavioral factors on coronary heart disease.
Amer J Public Health 56:1470-5, Sep 66.

892. LILIENFELD, A. M.
Formal discussion of: genetic factors in the etiology of cancer: an epidemiologic view.
Cancer Res 25:1330-5, Sep 65.

Genetic factors in the etiology of cancer from an epidemiologic viewpoint are discussed. The two principal approaches have been family and twin studies. Provided is a summary of results of studies of familial aggregation of breast cancer and percent of lung cancer deaths among relatives. Data are shown from a survey of twin studies on cancer, giving the concordance for cancer of twin pairs and the occurrence of cancer in the twin series (monozygous, same sex, and opposite sex). During recent years, another dimension has been added—findings of chromosomal aberrations as a cause of disease. Two different types of biologic models must be considered in determining the role of genetic factors, as in the case of mongolism. A tri-state study of leukemia is described. The epidemiologist, in studying human cancer, is faced with the problem, not only of attempting to assess the relative role of environment and genes in the classical model, but also of attempting to distinguish between these two models. 6 tables. 24 references. (Ed)

135. LIPSCOMB, W. R.
Survey measurements of the prevalence of alcoholism. A review of five surveys.
Arch Gen Psychiat 15:455-61, Nov 66.

893. MADOW, W. G.
Interview data on chronic conditions compared with information derived from medical records.
Vital and Health Statistics. Series 2, No. 23, May 67.

A study to measure accuracy and completeness of reporting chronic conditions in a health interview. The sample was from the Kaiser Foundation Health Plan. Medical records were compared with responses in interviews. Findings indicate that respondents in a health interview tend to report conditions that are severe,

costly, or require treatment. Differences in reporting of conditions in the interview were associated with differences in communication between physician and patient. Number and recency of medical visits were factors closely related to reporting of conditions. Recent impact of a condition such as pain, emotional stress, or days in bed had a greater effect on reporting than did the more general types of impact, e.g. routine medication or restrictions in diet. 38 tables. (AEd)

894. MCCARROLL, J., CASSELL, E. J., INGRAM, W.
Health and the urban environment. Air pollution and family illness: 1. Design for study.
Arch Environ Health (Chicago) 10: 357-63, Feb 65.

A longitudinal study of normal city dwellers to investigate the relationship between disease and the environment is described The plan is to correlate over a period of time daily variations in health of a group of urban families of diverse backgrounds living in the same geographic area with variations in the atmosphere. A sample of 1,000 persons (all related individuals in a household) of low and middle income, living on the lower East Side of New York City were enrolled. The data come from 1-hour interviews (each week for one year, covering health status, symptoms, complaints, sources of health care, and indices of disability), blood samples, and throat cultures. A weather and air pollution monitoring station was set up in the center of the area. 2 references. (Ed)

895. MCDOWELL, A. J.
U.S. National Health Examination Survey.
Pub Health Rep 80:941-8, Nov 65.

The National Health Survey, under the auspices of the National Center for Health Statistics, collects data by direct physical examination of a sample population. Strengths of the survey include use of probability sample in a nationwide examination program, high response rates, ability to inter-relate findings, use of talents of various specialists in the field. Limitations are: exclusion of institutionalized persons, too small a sample, a onetime visit, restricted questions. Three cycles have been planned—examination of adults ages 18-79, of children ages 6-11, and of youths ages 12-17. A 4th cycle is planned. 1 table. 5 figures. 8 references. (Ed)

896. MODAN, B.
Some methodological aspects of a retrospective followup study.
Amer J Epidem 82:297-304, Nov 65.

Description of followup procedures in a study of 1,200 patients with polycythemia originally seen in 7 medical centers in different parts of the country, some as long ago as 25 years. The risks of bias due to incomplete followup are evaluated, and determinations of the optimum point for discontinuing tracing efforts is discussed. 10 tables. 2 references. (Ed)

897. MULFORD, H. A.
Identifying problem drinkers in a household health survey.
Vital and Health Statistics. Series 2, No. 16, May 66.

Evaluation of interview techniques designed to identify problem drinkers in a household health survey and discussion of various measurement scales. Also, evaluation of a major field test, its methods, and results. 13 tables. (AEd)

898. O'SULLIVAN, J. B., MCDONALD, G. W.
Decisive factors in designing the sudbury study of chronic disease.
Pub Health Rep 81:891-7, Oct 66.

Biological and technical variability are sources of often unrecognized variation in results of epidemiological studies of chronic disease. The study of diabetes, arthritis, and gout in Sudbury Mass, is used to illustrate some of the ways that such problems can be handled. These methods consist of: (a) use of compensating measures such as application of diagnostic tests to a preselected random sample of the population in addition to those who screened positive or suspect on initial testing, (b) adoption of quality control procedures allowing measurement of technical variations with respect to both accuracy and reproducibility over the period of the study, and (c) retesting of a random sample of persons after a short interval in order to gauge biologic variability. Re-examination over longer intervals will provide annual incidence rates. The later development of overt disease will allow validation of initial diagnostic criteria and assessment of the degree to which fluctuating biochemical values affect interpretation. 3 tables. 27 references. (AEd)

899. PEARL, R. B., LEVINE, D. B., GERSON, E. J.
Studies of disease among migrants and native populations in Great Britain, Norway, and the United States. II. Conduct of field work in the United States.
Nat Cancer Inst Monogr 19:301-20, Jan 66.

The work of the U.S. Bureau of the Census is described in study planning and design and collection of data on demographic variables and symptoms of cardiorespiratory disease from samples of British-born, Norwegian-born, and native-born residents of the U.S. The study samples were drawn from the 1960 Census of Population (British and Norwegians) and from a national sample (U.S.-born) previously interviewed by the National Health Survey. Mail query was carried out in 2 stages; returns were received from 90% of the eligible population. The study design provided for personal interviews of subsamples of nonrespondents. Names and addresses of siblings living in Great Britian and Norway were obtained and sent to cooperating centers in those countries for use in similar mail queries. 8 tables. 1 figure. 2 references. 2 appendixes. (AA)

900. ROUQUETTE, C.
Canvassing in morbidity surveys.
Bull Inst Nat Sante 21:409-16, Mar-Apr 66. (FR)

A discussion of the use of sampling techniques in the field of health surveys. Best results are obtained when the health services collaborate with specialists in taking surveys. The development of a large number of morbidity inquiries will permit health services to organize their own sampling surveys. Inquiries are expensive and require participation of many statisticians and epidemiologists. Inquiries on morbidity or public health ought to be devised to have other applications besides a simple enumeration of diseases. They ought to be adapted to the structure of the country. Such inquiries constitute only one of the aspects of epidemiology, so it is not desirable to multiply them excessively at the expense of other research. (AEd)

901. SCHORK, M. A., REMINGTON, R. D.
The determination of sample size in treatment-control comparisons for chronic disease studies in which drop-out or non-adherence is a problem.
J Chronic Dis 20:233-9, Apr 67.

A common feature of many investigations of chronic disease is the comparison of 2 groups—treatment and control- in which characteristics of one or both of the assigned regimes favor non-adherence or drop-out. This paper considers studies involving a single treatment control comparison, a relatively long period of observation, and an outcome variable consisting of only 2 statistics. Examples are given for various types of experimental situations. Methods and models are discussed, illustrations given, and conclusions drawn from the patterns studied. 1 table. 1 reference. (Ed)

902. SEAL, S. C.
Integrated general health survey in India.
WHO Pub Health Pap 27:163-80, 65.

A new and enlarged general health survey in India for a 6-month period is to investigate the family as a basic unit, biologic and socioeconomic conditions, laboratory examinations with reference to nutrition assessment, married women, infants, pre-school and school children, pregnant women, persons with notifiable diseases, fertility, sanitary conditions, communications, schools and hospitals, diet, and malaria. Singur, New Delhi, and West Bengal each has its own survey. 13 references. (Ed)

903. SHAPIRO, S., WEINBLATT, E., DENSEN, P. M.
Longitudinal vs cross-sectional approaches in studying prognostic factors in coronary heart disease.
J Chron Dis 19:935-45, Aug 66.

The longitudinal and cross-sectional approaches have been defined in mutually exclusive terms. The longitudinal approach provides for repetitive observations on a population group, treated as a cohort, to clarify the relationship between time and changes in a characteristic of the cohort and to link changes in one period with those in another. To capitalize on this quality, difficult methodological problems and a long delay in obtaining results often are accepted. An alternative is the cross-sectional approach, which depends on observations made at a particular point in time and is concerned with variability at that point in time. Selection of the cross-sectional approach as an alternative to the longitudinal may require compromises that are sometimes important, sometimes trivial, in the scope of information to be obtained. The nature of these compromises has been explored with data collected on the return to work by men over an 18-month period following their first attack of myocardial infarction. 4 tables. 2 figures. 4 references. (AEd)

904. SIRKEN, M. G.
Federal survey collecting data on discharged patients.
Hospitals 40:64-9, 1 Aug 66.

Because there was no national system to produce, on a continuing basis, U.S. statistics on patients in short-term hospitals, the Hospital Discharge Survey was created. The objectives, content, and procedures of the survey are described. Although the scope will necessarily be limited initially, the survey will gradually be broadened to serve many purposes. (Ed)

905. SIRKEN, M. G.
Hospital utilization in the last year of life.
Vital and Health Statistics. Series 2. No. 10, Jul 65.

Results of research project to obtain estimates of hospital utilization by decedents. The U.S. National Health Survey covers only experience of persons living at the time that household interviews are conducted. Consequently, to obtain estimates of total hospital utilization, it is necessary to supplement the hospital data collected in the health interview survey with similar data for decedents. Text tables. (AA).

906. SKIPPER, J. K., JR., ELLISON, M. D.
Personal contact as a technique for increasing questionnaire returns from hospitalized patients after discharge.
J Health Hum Behav 7:211-4, Fall 66.

A major disadvantage of using mail questionnaires to obtain research data is the possibility of a very low rate of return. In a study of hospitalized patients, personal face-to-face contact by a sponsor of a study with respondents, before questionnaires were mailed, was an effective method for increasing returns. This technique appears suited for research in health fields where patients may be contacted while under medical care, and later mailed a questionnaire concerning their activities and behavior when no longer under treatment. 1 table. 11 references. (AEd)

907. STALLONES, R. A.
Prospective epidemiologic studies of cerebrovascular disease.
Public Health Monogr 76:51-5, 66.

Prospective and retrospective studies each have advantages and disadvantages. Retrospective studies may be used to provide a relatively quick test of a hypothesis or a short inquiry into a situation marked by especially high or low risk of illness but, ordinarily, a prospective study will be desired to confirm and quantitate the findings more precisely. The low risk of cerebrovascular disease in middle age, the difficulty of ascertaining cases and diagnosing them accurately, and the lack of well founded etiologic theories all place restrictions on the use of prospective methods of study of this condition. Nevertheless, situations of unusual promise for study can be identified and, for these, prospective studies should be proposed. Of special importance is the complex interrelation between cerebrovascular diseases, coronary heart diseases, and hypertensive diseases. Studies designed to exploit this circumstance are greatly needed. 1 table. 1 chart. 8 references. (AA)

908. SURVEY RESEARCH CENTER, INSTITUTE FOR SOCIAL RESEARCH, THE UNIVERSITY OF MICHIGAN.
Reporting of hospitalization in the Health Interview Survey.
Vital and Health Statistics. Series 2, No. 6, Jul 65.

Several hypotheses about factors leading to underreporting of hospital episodes in household interviews are: (1) The 12-month period of reference is arbitrary and the person may not remember his hospitalization experience, (2) The greater the time interval between hospitalization and interview, the less accurate the response, (3) Some hospital episodes can be expected to be suppressed because they may place the respondent in an unfavorable light, (4) Negative attitudes toward the interviewer may

result in underreporting. The study design is outlined; abstracting of hospital records and interview reports, time references, type of respondent, and sample (1,505 persons) are described. Text tables. (AEd)

909. TIBBLIN, G.
A population study of 50-year-old men. An analysis of the non-participation group.
Acta Med Scand 178:453-9, Oct 65.

A combined health examination and population study was carried out at Sahlgren's hospital, Gothenburg, Sweden, in 1963 (described in Acta Med Scand 177:739, 1965). The subjects were 973 50-year-old men; 118 refused to participate. For 38%, the main reason for non-participation was a negative attitude towards medical care in general. 1/3 of the non-participants were visited at home. They differed from the total in their incomes which were smaller, or non-existent. Only 44% were married. More were pensioners. The difference between the total and the group examined at the hospital is insignificant due to the relatively small size of the non-participation group. 9 tables. 2 references. (AA)

910. VACEK, M.
On the problem of the diagnosis in the statistical determination of morbidity.
Cesk Zdrav 13:383-7, Aug 65. (CZ)

In the planning of statistical morbidity surveys, the application of standard diagnostic criteria is of fundamental importance. The demands placed upon the sensitivity and specificity of diagnostic methods differ from those in clinical work, and depend on the objectives of the survey. Frequently, less accurate and less pretentious method makes the processing of more extensive material possible. Demands on accuracy and the extent of the survey must be balanced mutually in such a way as to obtain an optimum solution of the given problem. 2 figures. (AEd)

911. WATTS, D. D., STRAUGHN, V. C.
Screening for chronic diseases in a low-income group.
Med Ann D.C. 34:166-9, Apr 65.

A project at Howard University College of Medicine concerning delay in seeking medical care. Attention was centered on low income Negroes in the Second Precinct of Washington, D.C. Features of the program are: (1) door-to-door interviews, all dwelling units of the area, (2) detailed social history by a professional worker leading to referral to social and welfare agencies, (3) complete physical examination by a physician, (4) close followup on the patient. The medical aspect of this program is concerned primarily with early detection of chronic diseases and referral of patients to appropriate agencies or private physicians. It has not been too difficult to encourage the majority of patients to seek medical care, once individual interest has been shown in their medical as well as social problems, and a record of over 75% followup may be considered encouraging. (Ed)

912. WILBAR, C. L., JR.
Measuring chronic illness morbidity.
Arch Environ Health (Chicago) 14:279-82, Feb 67.

In the U.S., chronic diseases are responsible for 7 out of 10 leading causes of death, accounting for approximately 76% of all deaths. 5 methods for measuring the extent of chronic diseases are described and evaluated: (1) mass screening by laboratory tests, (2) door-to-door health interview surveys, (3) hospital case records, (4) reporting of cases by practicing physicians, (5) large scale estimates obtained from other than professional sources (e.g. police records for alcoholism). Laboratory records when available are valuable, especially for early case finding. Surveys provide data on the conditions which seem important to the person being interviewed. Hospital records are apt to be the most accurate but vary widely and usually provide information only on the more serious types of illnesses. Physicians do not report all chronic diseases unless they are of a notifiable type. Nonprofessional sources may not be the most accurate. 8 references. (AEd)

913. WOOSLEY, J. C.
One-day census yields statewide statistical profile of hospital patients,
Hospitals 39:59-62, 16 Jan 65.

A 1-day census study to gather data on all patients in short-term general hospitals in Michigan (November 15, 1962). Statistics were developed on age, sex, race, source of payment, diagnosis, travel distance to hospital, and other patient facts. Data on characteristics of various patient groups are given. 5 tables. (AEd)

914. WUNDERLICH, G. S.
Methods and response characteristics, National Natality Survey, U.S., 1963.
Vital and Health Statistics. Series 22, No. 3, Sep 66.

Methods and procedures of 1963 National Natality Survey and selected findings on response and completeness of the data. The survey was to provide national estimates of the amount and type of exposure to ionizing radiation experienced by women during pregnancy. Information was also obtained on selected socioeconomic characteristics of families in which births occurred. About 4,100 birth records were sampled and additional information was obtained by mail survey of the mother, the hospital where the child was born, the attending physician, and other physicians and dentists who may have treated the mother during pregnancy. About 86% of the mothers responded. The response rate was lower for nonwhite mothers and mothers of lower income and education. The response rate for physicians, dentists, and medical facilities was over 90%. Response from sources questioned about white mothers was higher than from sources reporting about nonwhite mothers. 8 tables. (AEd)

D. OTHER

915. ANONYMOUS.
Computer simulation of hospital discharges.
Vital and Health Statistics. Series 2, No. 13, Feb 66.

A study on computer micro-simulation of discharges from short-stay hospitals, and on the associated measurement errors that occur in household interview surveys. A universe of 10,000 persons was generated with demographic characteristics similar to those of the U.S. civilian, noninstitutional population. This universe was subjected to stochastic operations to simulate hospital experience, and the reporting of that experience in household interviews. At monthly intervals the living persons in the synthetic population then were "interviewed" by the computer and reported their hospital experience over the previous year. Simulated interview data with and without response error were tabulated. 12 tables. (AEd)

916. ANONYMOUS.
Public health conference on records and statistics.
Pub Health Rep 79:991-6, Nov 64..

Highlights of the 10th biennial meeting of the Public Health Conference on Records and Statistics, held June 15-19, 1964, in Washington, D.C., giving suggestions and discussion of ways to advance the country's vital and health statistics.

917. ANONYMOUS.
Report of the U.S. delegation to the International Conference for the eighth revision of the International Classification of Diseases.
Vital and Health Statistics. Series 4, No. 6, Sep 66.

In preparing for the 8th Revision of the International Classification of Disease (ICD), begun in U.S. in 1959. the various broad needs for a disease classification were recognized. After successive modifications, the disease classification finally adopted by the Conference provides a generally satisfactory structure for use in the U.S. and important advance over the previous revision of ICD. The proposed section on mental diseases is more closely aligned with the views of American psychiatry. Greater recognition is given to dental conditions and to congenital anomalies that are of interest in genetic studies of the human population. The classification of nature of injury, especially adverse effect of drugs has been updated to meet needs of hospitals. (AEd)

918. ANONYMOUS.
The accuracy and comparability of death statistics.
Who Chron 21:11-7, Jan 67.

Studies in 6 European countries reveal that many discrepancies occur in certification of death and in interpretation of death certificates by codes. The use of the 8th revision of the International Classification of Diseases, Injuries, and Causes of Death is expected to reduce the number of such discrepancies, but there is also a need for greater uniformity between countries in the procedures adopted if death statistics are to be truly comparable. 5 tables. (AEd)

919. ANONYMOUS.
The new death certificates. Current observations with reference to the introduction of the new forms.
FRA Sundhedsstyr 4:69-72, Jun 66. (DAN)

No English summary.

920. ALDERSON, M. R., MEADE, T. W.
Accuracy of diagnosis on death certificates compared with that in hospital records.
Brit J Prev Soc Med 21:22-9, Jan 67.

The "principal condition treated" in hospital, as stated on the summary sheet of in-patient notes, and the "underlying cause of death" on the death certificate were compared for 1,216 patients dying in 30 hospitals of the Oxford record linkage study area in 1962. In 39% of the cases, the two diagnoses differed to such an extent that they had to be coded to different groups of List B of the International Statistical Classification of Diseases. A 1 in 12 random sample of the 1,216 cases was drawn and the main clinical documents were examined. The original codes for the hospital diagnosis and death certificate differed in 40% of the 105 cases. The discrepancies are analyzed and discussed. Since about half of all deaths occur in hospitals, a national level of error in death certificates comparable to that found in this study would seriously reduce the value of the Registrar General's figure for causes of death. 7 tables. 14 references. (AEd)

643. ANDERSON, U. M., JENSS, R., MOSHER, W. E.
High-risk groups–definition and identification.
New Eng J Med 273:308-13, 5 Aug 65.

921. BRUSHLINSKAIA, L. A., MAZUR, M. M.
On methods of depth investigation of the general morbidity of the population.
Zdravookhr Ross FED 9:22-4, Sep 65. (RUS)

No English summary.

922. CHIANG, C. L.
An index of health: Mathematical models.
Vital and Health Statistics. Series 2, No. 5, May 65.

Mathematical models of frequency and duration of illness episodes. Comparison of expected frequency of illness generated by the model with observed frequencies obtained from a sickness survey. An index of health is proposed, using measures of the average duration of illness in a population and an allocation of time lost due to death. 4 tables. (Ed)

923. CHIANG, C. L.
Variance and covariance of life table functions estimated from a sample of deaths.
Vital and Health Statistics. Series 2, No. 20, Mar 67.

Formulas for the variance and covariance of functions of abridged and complete life tables based on a sample of deaths are derived. Life table functions, as any statistical quantities, are random variables. When a life table is constructed on the basis of a sample of deaths rather than on the total count, there is a component of sampling variation associated with the observed values. This

component of variation must be assessed in making statistical inference regarding survival experience of a population as determined in such a table. In the formulas for the variance and covariance of estimates of the probability of dying, the survival rate, and the expectation of life, both the random variation and the sampling variation are taken into account. Life tables. (AA)

924. CIUCA, A., JUNOVSKI, V.
A new method for the estimation of the "Biological Age" by mass surveys.
Munchen Med Wschr 107:1507-13, 30 Jul 65. (GER)

The method for the determination of the biological age in medico-social serial examinations consists of a number of tests which, based on complex medical study, demonstrate the qualitative (morphologico-functional) changes of tissue, organs, and organo-systems. Age criteria used were later scored according to importance of individual tests within the general aging process. The method may be used in different countries, inasmuch as the biological age expressed in figures represents comparative data on the aging rhythm of the population of the appropriate areas. 2 tables. (AA)

925. DOLL, R., COOK, P.
Summarizing indices for comparison of cancer incidence data.
Int J Cancer 2:269-79, 15 May 67.

No summary index can replace the information provided by age-sex-specific cancer incidence rates. However, for certain cancer sites, truncated standardized incidence rates over restricted age ranges can be useful. Other standardized indices are discussed for indicating the rate at which cancer incidence increases with age. 6 tables. 2 figures. 7 references. (AEd)

329. DORN, H. F.
Underlying and contributory causes of death.
Nat Cancer Inst Monogr 19:421-30, Jan 66.

58. ERKELENS, A. D.
The incidence of arteriosclerotic heart disease. A method to estimate morbidity.
Nederl T Geneesk 111:929-32, 20 May 67. (DUT)

926. GIFFORD, A. J.
An epidemiological study of cerebrovascular disease.
Amer J Public Health 56:452-61, Mar 66.

Selected personal, clinical, and family characteristics of patients who had a stroke were compared with a group of control patients. Cases were drawn from Baltimore residents, aged 45-69 years, hospitalized at the Montebello State Hospital, 1961-62. Data are by age, sex, clinical characteristics, socioeconomic status, foreign born, employment history, marital status, and pregnancies. Findings are not definite but suggest more precise hypotheses for future study. 16 tables. 17 references. (Ed)

927. GRABOVSKII, P. P.
Complex morbidity indexes of the population.
Vrach Delo 7:124-7, Jul 65. (RUS)

No English summary.

928. GRAINGER, R. M.
Orthodontic treatment priority index.
Vital and Health Statistics. Series 2, No. 25, Dec 67.

Research into the means of objectively assessing the degree of handicap due to malocclusion in terms of a Treatment Priority Index. A judgment of severity of malocclusion for each of 375 12-year old children from 3 Ontario communities was obtained through direct examination by orthodontic specialists. Using multiple regression methods, formulas were developed for estimating the judgment scores from the objective measurements. Correlation between the calculated score and the actual clinical judgment was comparable to that between two sets of clinical judgments. The index may be useful in epidemiological studies, as well as in initial screening of populations to determine need for treatment while providing a rough description of the case type. 16 tables. (AEd)

350. GURALNICK, L.
Some problems in the use of multiple causes of death.
J Chronic Dis 19:979-90, Sep 66.

678. GURALNICK, L., WINTER, E. D.
A note on cohort infant mortality rates.
Pub Health Rep 80:692-4, Aug 65.

929. HEMS, G.
Detection of effects of ionizing radiation by population studies.
Brit. Med J 5484:393-6, 12 Feb 66.

Development and use of atomic energy has led to an increase in man's exposure to ionizing radiation. In order to detect radiation effects by a population study, the population must be large enough for radiation effects to be statistically significant. Studies were made of cosmic ray effects and occupational exposure to radiation in areas of Brazil, Ceylon, and India. An adequate population study would involve setting up a satisfactory control population and assessing mean annual doses induced by background radiation. 2 tables. 1 figure. 18 references. (AEd)

778. HENDERSON, M., REINKE, W. A.
Analytical bias in studies of pregnancy outcome.
Amer J Obstet Gynec 96:735-40, 1 Nov 66.

930. HEWITT, D., SANDERS, B., STEWART, A.
Oxford survey of childhood cancers: Progress report, IV, reliability of data reported by case and control mothers.
Monthly Bull Minist Health (London) 25:80-5, Apr 66.

Two groups of mothers were interviewed in 1964: those whose children died of cancer, and the controls, those whose children were alive. The question of whether sibs of children with early cancer have a high risk of developing cancer was checked from statements of mothers, General Register Office records, and official reports. Most of the mothers' claims about sib cancer deaths corresponded with the records. Antenatal records on x-rays revealing earlier and repeated exposure of the fetus in the case group suggested that fetal irradiation increased the risk of childhood cancer. No general tendency was observed for mothers of live children to report a smaller proportion of prenatal events than the case mothers. 2 tables. 7 fererences. (Ed)

931. HUBBARD, M. R., ACHESON, E. D.
Notification of death occurring after discharge from hospital.
Brit Med J 3:612-3, 2 Sep 67.

Only 1/3 of the deaths occurring within a 2-year period after discharge from a group of hosiptals had been recorded in the hospital notes of the patients concerned. Of those occurring within 1 month of discharge, 1/2 had been recorded. The possible merits of supplying the missing data are discussed from the administrative and clinical points of view. 1 table. 3 references. (AA)

932. HUXTABLE, D. L.
Vital statistics aid in developing nations.
Amer J Pub Health 57:504-8, Mar 67.

The development of a vital statistics program in Kenya is described. Some factors to be considered in assisting such development are discussed. (Ed)

110. KAHN, H. A., AND DAWBER, T. R.
The development of coronary heart disease in relation to sequential biennial measures of cholesterol in the framingham study.
J Chron. Dis 19:611-20, May 66.

933. KENLINE, P. A., CONLEE, C. J.
Nashville air pollution and health study.
Pub Health Rep 82:17-29, Jan 67.

An extensive air pollution and health study in Nashville, Tenn. to investigate possible relations between air pollution and health and to gather information on a number of medical, engineering and meteorological phases of air pollution. Bronchial asthma, respiratory diseases, and anthracosos, morbidity and mortality of respiratory diseases, and mortality of cardiovascular disease were studied in relation to air pollution. A bibliography of papers on the Nashville studies is included. 28 references. (AEd)

934. KEYFITZ, N.
3. Sampling variance of standardized mortality rates.
Hum Biol 38:309-17, Sep 66.

The effect of sampling variance on the crude and standardized death rates need to be determined when sample surveys are carried out such as in countries developing a vital registration system or elsewhere to obtain supplemental information. Assumptions underlying the deviation of variances are discussed including the independence and relative precision of population and deaths. Applications are made. 3 tables. 2 references. (Ed)

935. KHEIFETS, L. B., LIVSHITS, V. M.
On the use of certain methods for statistical assessment of a unit morbidity rate.
Zh Mikrobiol 42:86-91; Sep 65. (RUS)

No English summary.

141. MADAR, J.
Statistics and epidemiology of atherosclerosis.
Cas Lek Cesk 105:68-74, 21 Jan 66. (SLVK)

936. MORIYAMA, I. M.
The eighth revision of the International Classification of Diseases.
Amer J Pub Health 56:1277-80, Aug 66.

The eighth Revision of the International Classification of Diseases will go into effect on Jan 1, 1968 for the compilation of national morbidity and mortality statistics. Changes made in the present revision and certain problems are described and discussed. 5 references. (Ed)

937. MORIYAMA, I. M.
Uses of vital records for epidemiological research.
J Chron Dis 17:889-97, Oct 64.

Past uses of vital records for epidemiological research are traced. Their potential uses are just now being tapped in the form of record linkage systems. The potentials of vital records have not yet been fully exploited in studies of determinants of disease. References. (Ed)

938. MORIYAMA, I. M.
Vital and health statistics of the future.
Milbank Mem Fund Quart 44:318-26, Jul 66.

The present and future status of vital and health statistics are discussed. Significant changes in the quality and coverage of these data are foreseen through: (1) nationwide statistics on marriage and divorce, (2) tabulations of multiple diagnoses of cause of death, (3) increasing use of record linkage and followback inquiries, (4) more sophisticated uses of electronic computers, (5) expansion of health surveys providing information on morbidity, and (6) plans to create a new body of health data relating to the family as a unit. (Ed)

939. MORIYAMA, I. M., DAWBER, T. R., KANNEL, W. B.
Evaluation of diagnostic information supporting medical certification of deaths from cardiovascular disease.
Nat Cancer Inst Monogr 19:405-19, Jan 66.

Information on diagnostic methods and findings, on which medical certifications of causes of death were based, was secured by questionnaires to medical certifiers and others with knowledge of a national sample of cardiovascular-renal disease deaths which occurred in 1960. The returns were reviewed and determinations made as to whether the assigned cause of death was supported by diagnostic data. Information was also secured on sudden and unexpected deaths and on the presence or absence of associated diseases. 3 tables. (AEd)

940. MULCAHY, R.
The uses of prospective and retrospective population surveys in the study of coronary heart disease—with a note on Ireland's suitability for epidemiological studies.
Irish J Med Sci 6:299-309, Jul 67.

Epidemiological studies show that Ireland has one of the highest incidences of coronary heart disease, ranking with the U.S. and U.K. Problems in the elucidation of the causes of coronary heart disease are discussed. Reasons for neglect of retrospective studies are discussed and

suggestions for work are made. Results from a comprehensive study are reported and compared with results from prospective studies. A special note is made of Ireland's suitability for epidemiological studies since it has a small and easily accessible population, ethnically and culturally homogeneous, with a reasonably satisfactory minimum standard of education, few industrial centers, well established medical schools, a high standard of medicine, and a number of large families. 12 references. (AEd)

941. MYERS, R. J.
Limitations in the use of OASDI records for health studies.
Amer J Public Health 55:1787-91, Nov 65.

The Old-Age, Survivors, and Disability Insurance system (OASDI) maintains current employment records for about 90% of the workers in the country, as well as claims records on 20 million persons receiving monthly benefits. While these records provide data for valuable studies of mortality and long-term disability, there are serious difficulties in using them for some types of studies, such as those classified by occupation or earnings level. Difficulties arise in part from the fact that the organization of the record system, designed to provide economical handling of normal administrative demands, does not provide for economical handling of unusual research demands. (AEd)

170. OSBORNE, R. H., DE GEORGE, F. V.
Neoplastic diseases in twins: Evidence for pre- or perinatal factors conditioning cancer susceptibility.
Cancer 17:1149-54, Sep 64.

942. PERRIN, E. B., SHEPS, M. C.
A mathematical model for human fertility patterns.
Arch Environ Health 10:694-8, May 65.

The construction of a mathematical model which will adequately describe the reproductive pattern of the human female, whether considered individually or in aggregate. It is possible with the program that has been developed to simulate and record the passage of a woman through 25 years of reproductive life in two-tenths of a second. 3 tables. 3 references. (AEd)

420. REID, D. D., ROSE, G. A.
Assessing the comparability of mortality statistics.
Brit Med J 5422:1437-9, 5 Dec 64.

943. RICE, D P.
Estimating the cost of illness.
Amer J Public Health 57:424-40, Mar 67.

Outlines a methodological framework for calculating single-year cost of illness, disability, and death. Economic principles used are summarized, and several methodological problems, such as the presence of multiple diseases, gaps in statistical data, and others are presented. Suggestions for the use of these single-year data or illness costs are summarized. Tables on national health expenditures, mortality losses by selected diagnosis and sex; morbidity losses, distribution by type of institution; morbidity losses by noninstitutionalized cases of the population; morbidity by age, by labor force, etc. Annual economic costs by selected diagnosis by type of cost are given and discussed. All of the tables refer to 1963 data. 10 tables. 26 references. (AA)

944. RIDLEY, J. C., SHEPS, M. C., LINGNER, J. W.
The effects of changing mortality on natality. Some estimates from a simulation model.
Milbank Mem Fund Quart 45:77-97, Jan 67.

A computer model "REPSIM," which simulates the reproductive history of a hypothetical cohort of women, was applied to study the effects of improved survival on natality and to derive quantitative estimates of these effects. In the reported experiments, varying mortality levels for the women, their infants, and their husbands were postulated. The particular schedules were derived from the United Nations Model Life Tables. The model provided a method of observing more directly the results produced by varying selected conditions while holding others constant and using specified simplifying assumptions. Information that cannot be secured from real populations could thus be made available for analysis. 6 tables. 3 figures. 21 references. Appendixes. (AEd)

945. SCHOENFELD, R. L.
The digital computer and public health.
Arch Environ Health (Chicago) 14:327-32, Feb 67.

Use of digital computers enables the processing of results of screening tests, for a number of diseases, to take place simultaneously with the test procedures carried out at different hospitals. The rapidity of processing makes possible the availability of the results before patient leaves the clinic. Each patient's history, including all test and questionnaire results, is compiled. The main purpose of screening however is the detection of disease conditions. The information may be processed in a variety of ways to permit statistical studies and summary reports for use of the participating hospital. One can envision a computer operated community, or regional, public health facility with up to the minute records of its medical care, hospital admissions, and disease profiles for comparison with other regions and for improvement in its performance. 8 references. (AEd)

946. SHEPS, M. C., PERRIN, E. B.
Further results from a human fertility model with a variety of pregnancy outcomes.
Hum Biol 38:180-83, Sep 66.

A simplified model is presented for the sequence of events occurring during reproduction. Like the more general system (Perrin and Sharp, 1964) of which this is a special case, the model provides for fetal wastage and for nonsusceptible periods associated with pregnancy that vary with the outcome of the pregnancy. It yields generating functions for intervals between birth and from marriage until r-th birth and is easily extended to provide for complete sterility in part of the population, and (under suitable assumptions) for a distribution of fecundabilities in the population. 1 table. 30 references. (AEd)

947. SIRKEN, M. G.
Comparison of two methods of constructing abridged life tables by reference to a "standard" table.
Vital and Health Statistics. Series 2, No. 4, Revised Mar 66.

After small biases were detected in the values of 1950 U.S. abridged life tables, studies led to the development of a revised method of construction. A test of the

accuracy is presented involving a comparison of the 1949-51 abridged life tables constructed by the revised method with the complete decennial 1949-51 life tables which were constructed by elaborate and laborious methods. There was close agreement between the values of the expectation of life based on the two methods. Life tables. (AEd)

948. SODA, T.
A nationwide simple morbidity survey in Japan.
WHO Public Health Pap 27:181-96, 65.

Beginning in 1953, a "Basic Survey for Health and Welfare" has been conducted in Japan each fiscal year to: (1) obtain annual bird's-eye view of living conditions, and (2) provide an adequate master sample for subsample surveys which include a "National Health Survey." The conclusion is reached that the Basic Survey, although simple, shows some advantages over the National Health Survey by revealing the interrelationship between morbidity status and socioeconomic condition. Both kinds are needed and further study on both types should be promoted. 8 tables. (Ed)

949. SUCHMAN, E. A.
Social stress and cardiovascular disease. Factors involving social and demographic characteristics. Appraisal and implications for theoretical development.
Milbank Mem Fund Quart 45:Suppl:109-13, Apr 67.

A look at the existing morbidity and mortality statistics for coronary heart disease and a comparison of the rates for different demographic groups appears to be a simple task on the surface, but the impression gained is one of overwhelming confusion. Suggestions for a working hypothesis for research on this subject and a sequence is diagrammed, keeping in mind the arbitrariness of defining any two variables as independent or dependent. A wide variety of sociological and psychological variables could be introduced as intervening variables into the reported correlations between such factors as sex, age, education, race, nationality, religion, occupation, income, and cardiovascular disease. More research is needed and suggested. (Ed)

950. SULLIVAN, D. F.
Conceptual problems in developing an index of health.
Vital and Health Statistics. Series 2, No. 17, May 66.

Two essential characteristics of an index of health status are identified. It must: (1) be sensitive to the need for and adequacy of health activities, and (2) be composed of measurable components. Several concepts of a population's level of health are examined in view of these requirements. A measure of health in terms of mortality and morbidity seems appropriate. This requires an operational definition of morbidity. Examination of various methods of defining and measuring morbidity suggests that formulation of a concept of the total impact of illness might serve this purpose. The impact of illness is defined in terms of forms of disability which might be measured by cross-sectional surveys. Sources of data, problems of reliability and validity, and use of such a measure in construction of an index are discussed. (AA)

951. TARASOV, K. E., SOBOLEVSKII, G. N.
Apropos of the classification and nomenclature of diseases and causes of death.
Sovet Zdravookhr 24:28-33, 65. (RUS)

No English summary.

952. U.S. NATIONAL COMMITTEE ON VITAL AND HEALTH STATISTICS.
Fertility measurement.
Vital and Health Statistics. Series 4, No. 1, Reprinted Nov 65.

Measuring fertility in the U.S. is discussed in terms of its adequacy in portraying current trends. Data published include birth rates, age-sex-adjusted birth rates, gross reproduction rates, and general fertility rates. Plans for development of new measures include additional cohort fertility rates, followback studies, use of proposed new items of information on the revised U.S. Standard Certificate of Live Birth, and data from the Current Population Survey on women by number of children ever born, by number of children present in the home, and child spacing. Interview surveys measure aspects of fertility not available from birth registration or the decennial census. Birth expectations data are an important adjunct to the analysis of current trends. The introduction of social and economic as well as demographic variables is necessary for improvement of population projection methodology. Text tables. (AEd)

953. VACEK, M.
Information on morbidity from medical practice.
WHO Public Health Pap 27:69-76, 65.

European countries all have health statistics but they reflect only a part of the over-all morbidity of the population. Scope, purpose, and value of statistics from medical record surveys are discussed. Some limitations of such surveys are listed. 9 references. (Ed)

954. VACEK, M.
On the concept of positive health.
Cesk Zdrav 14:190-4, Apr 66.

The basic postulates of a concept of positive health, applicable in statistical processing are defined: (1) Indicators of increased resistance against certain categories of disease. These are identified from medical histories, genetic information, and data on living patterns and the environment for population groups in which the incidence of these diseases is small. Summarization of a single indicator of general resistance is not feasible. (2) Indicators of general resistance deduced from study of cohorts of fit, long-lived individuals. Determination of these indicators should enable a controlled empirical trial of the effectiveness of provisions for raising specific and general resistance. (AEd)

955. ANONYMOUS.
Married population may reach 100 million in 1970.
Statist Bull Metrop Life Insur Co 46:6-7, Sep 65.

The married population has increased greatly, reaching 89½ million, a gain of 4 million since 1960. Increases will undoubtedly continue, due to the numbers coming of age in the near future. In 1964, 68% of the population 15 years and over were married, 61% in 1946, and 55% in 1890. The increase in 1946 reflects the spurt of marriages after World War II. A decrease has been recorded in teenage marriages. Marked reduction in mortality has extended the average length of married life and postponed the onset of widowhood. 94% of those age 40 or older are or have been married. 1 table. (Ed)

956. ANONYMOUS.
Population and families.
Statist Bull Metrop Life Insur Co 48:9-11, May 67.

The vast majority of our population lives in families; 82% were living in families with husband and wife present and 10% were members of other types of families. Data by family status, age, income, and geographic distribution were given. Among those not living in families,, 1/3 are 65 years of age or over. In 1965 1/5 of all families had incomes under $3,000 and a like proportion received $10,000 or more. 2 tables. (Ed)

957. ANONYMOUS.
Population mobility continues high.
Statist Bull Metrop Life Insur Co 47:1-3, Apr 66.

1/5 of the U.S. population changed residence each year since 1948. From 1964 to 1965, 38 million persons ages 1 or older moved within the country, and an additional 1 million came into this country from abroad. Mobility rates for various segments of the population, 1964-1965, are shown. With advancing age, mobility progressively lessens. A greater proportion of nonwhites than whites change residence. Females are only slightly less mobile than males. The mobility rate is 1½ times as high for unemployed as for employed persons. 1 table. (Ed)

958. ANONYMOUS.
The American family.
Statist Bull Metrop Life Insur Co 46:1-3, Dec 65.

The number of families in the U.S. has increased since WWII by about 12 million (1965), and is expected to increase to 62 million by 1980. The upswing is due to new family formations, as postwar babies reach the age of marriage. The number of married couples will increase by 30%, 1965-1980. 1/4 the family heads are under 35 years of age. Another large proportion are 65 or older. About 1 of 10 families have a woman as head of household, partly because women outlive their husbands. 1 table. 1 chart. (Ed)

959. ANONYMOUS.
The population of elders.
Statist Bull Metrop Life Insur Co 46:1-3, Nov 65.

The U.S. Bureau of the Census reports 18.2 million persons at ages 65 and over in 1965—a gain of 1.6 million since 1960. The older population has risen from 8% to 9% of the total. There are now 129 females for 100 males at ages 65 and over. Two decades hence, the ratio may be 143 to 100. Marital status, living arrangements, and labor force participation of the population of elders is discussed. 1 table. (Ed)

960. AHMED, P. I.
Family hospital and surgical insurance coverage, U.S., July 1962-June 1963.
Vital and Health Statistics. Series 10, No. 42, Nov 67.

Statistics from the Health Interview Survey on the extent of hospital and surgical insurance coverage in the population by size and type of family, family income, education of head of family, geographic region, residence, color, labor force participation status, and hospital expense. 10 tables. (AEd)

961. ALDERMAN, A. J.
Prescribed and nonprescribed medicines: Types and use of medicine, U.S., July 1964-June 1965.
Vital and Health Statistics. Series 10, No. 39, Oct. 67.

Statistics from the Health Interview Survey on the types and uses of prescribed and nonprescribed medicines. Prescribed medicines are classified by the condition for which prescribed, when possible, and average costs are shown per person in the population and per acquisition. An acquisition was counted each time a prescription was filled or refilled for an individual during a specified period. Nonprescribed medicines are classified by the type of medicine. Average costs per person in the population and the distribution of costs of nonprescribed medicines by place of purchase are presented. 20 tables. (AA)

962. ALDERMAN, A. J.
Volume of dental visits, U.S., July 1963-June 1964.
Vital and Health Statistics. Series 10, No. 23, Oct 65.

Statistics from the Health Interview Survey on the volume of dental visits made by the civilian, noninstitutional population of the U.S. during the year 1963-64 by type of dental service and selected residential and demographic variables. An average of 1.6 visits per person were made, varying with age, sex, population density, geographic region, family income, color, education of the head of family, and marital status. For the entire population, fillings and examinations were the types of service most frequently included in dental visits. However, for specific age groups, the extent to which visits included such services varied. 32 tables. (AEd)

963. BEADENKOPF, W. G., POLAN, A. K., MARKS, R. U.
Some demographic characteristics of an autopsied population.
J Chronic Dis 18:333-51, Apr 65.

Investigation of differences between autopsied hospital patients, other hospital deaths, and deaths in the general population. Analyzed were age, sex, nativity, race, marital status, size of residence, place, religious preference, and cause of death. 9 tables. References. (AEd)

964. BROEL-PLATERIS, A. A.
Divorce statistics analysis, U.S., 1962.
Vital and Health Statistics. Series 21, No. 7, Dec 65.

Annual divorce and annulment statistics for the divorce registration area for 1962 and data on personal characteristics of persons divorced in Hawaii, Iowa, Tennessee, and Wisconsin in 1960 and 1961 are presented. In 1962, the divorce rate was 2.2 per 1,000 population and 8.0 for persons under age 18. Median duration of marriage was 7.3 years. In the 4 selected States, the divorce rate declined with increasing age of husband and wife. For white persons the rate was highest among teenagers, and it was highest for nonwhite persons in their 20's. The average number of children per divorce was 1.3. 20 tables. (AEd)

965. BRYANT, E. E.
Institutions for the aged and chronically ill, U.S., April-June 1963.
Vital and Health Statistics. Series 12, No. 1, Jul 65.

Institutions for the aged in the U.S. are described by admission policies, type of nurse in charge of nursing care, whether or not round-the-clock nursing service is provided, and the amount charged for care of residents based on a sample survey in 1963. About 46% of institutions were classified as nursing care homes and 29% as personal-care-with-nursing homes (personal care was the primary service but some nursing care was provided). 4% were long-stay hospitals or hospital units for care of the aged and chronically ill. 21% were homes which routinely provided personal care but not nursing care. About 2/3 of the institutions admitted only bedfast patients. The vast majority of the nursing care homes and "hospitals" employed a nurse of some type to supervise nursing care and provided nursing service 24 hours a day. Average charges ranged from $117 per month for personal care homes to $206 per month for nursing care homes. 13 tables. (AEd)

966. BUI-DANG-HA DOAN, J.
Physician needs and resources for 1980.
Concours Med 87:3170-9, 1 May 65.

To estimate the needs for doctors in France in 1980, the number of consultations and visits that would probably be needed, and the annual number of consultations and visits that the doctor ought to make was computed. Available surveys in 1960 showed that the consultations and visits made annually per doctor ranged between 3,997 and 4,569. It was estimated that these would be reduced by 10% per doctor in 1980. In 1970, the number of doctors practicing will be about 59,500, about 11,500 less than what is needed. 2 tables. 1 figure. 8 references. (AEd)

967. CHULIS, G. S.
Dental visits, time interval since last visit, U.S., July 1963-June 1964.
Vital and Health Statistics. Series 10, No. 29, Apr 66.

Time interval since last dental visit is presented by age, sex, color, usual activity status, marital status, education of the head of family, family income, residence, and geographic region. 42% of the civilian, noninstitutional population, had seen a dentist in the year prior to interview. About 17% (mostly young persons) had never made a dental visit. A strong, direct relationship between the proportion of persons with recent dental visits and socioeconomic status was evident. Variation was noted with respect to recency of dental care between persons living in the various geographic regions and residence categories. Data are from the Health Interview Survey. 29 tables. (AEd)

968. CLAGUE, A. J. AND VENTURA, S. T.
Trends in illegitimacy, U.S., 1940-1965.
Vital and Health Statistics. Series 21, No. 15, Feb 68.

Recent trends and differentials in illegitimacy based on information on birth certificates of 34 States and the District of Columbia. The illegitimacy rate, number of illegitimate births per 1,000 unmarried women 15-44 years of age, has increased from 7.1 in 1940 to 23.5 in 1965. Illegitimacy rates have always been higher for nonwhites than whites but the differential has been declining recently. Differentials in illegitimacy are found by age of mother, live birth order, place of residence, and socioeconomic status. Illegitimate children suffer not only because of their legal status but also with respect to physical development at birth and subsequent health. 26 tables. (AEd)

969. FRANCO, S. C.
Re-employment or retirement. Background and definitive statement of the problem of disability.
Arch Environ Health 11:835-40, Dec 65.

Statistics from the Consolidated Edison Company, New York, are cited to show the scope of the medical problem of disability faced by industry. Of 23,000 workers, 1,962 (9%) were afflicted by a disabling condition that required permanent physical restrictions. The specific "restrictions" are listed by number of each and by age groups. Cardiovascular diseases rank first with 55%; next are diseases of the central nervous system, 10%, and diseases of the skeletal system, 7%. Orthopedic cases account for a very small percentage. 1 table. 9 references. (Ed)

970. GILLE, H.
World population growth and some implications.
Brit Med J 5473:1302-4, 27 Nov 65.

The present world population of about 3.4 billion is increasing by 70 million a year. In the less developed countries of Africa, Asia, and Latin America, the growth rate is even higher. The recent rapid increase is due to a spectacular decline in mortality because of health improvement, to effective disease prevention methods, and to the continuing high level of fertility especially in the less developed countries. Problems are discussed including: increasing agricultural productivity, improving the diet, combatting illiteracy, coping with housing, public health, employment, medical care, and reducing fertility. (Ed)

971. HACKENBERG, R. A.
An anthropological study of demographic transition. The Papago Information System.
Milbank Mem Fund Quart 44:470-93, Oct 66.

Description of a demographic information system to record the pattern of adaptation of an American Indian group to urban-industrial society. A continuous population register is maintained including information on age, sex, place of origin, marital status, procreative experience, education, and health status. Village surveys supply the initial registration, and automated linkage with vital, medical, and other records keep it cur-

rent. The comprehensive health program of the Division of Indian Health provides the framework for operation of the register, much of the data for its maintenance and the numerator data for vital and health statistics for which the register supplies denominators. 1 table. 1 figure. 75 references. (Ed)

972. HANNAFORD, M. M.
Characteristics of patients of selected types of medical specialists and practitioners, U.S., July 1963-June 1964.
Vital and Health Statistics. Series 10, No. 28, May 66.

The percent of persons who consulted selected types of medical specialists and practitioners by age, sex, residence, geographic region, family income, usual activity status, color, and education of the head of family from the Health Interview Survey. Annual number of visits per patient is shown. A study to estimate the accuracy with which respondents recognized 10 specialty areas is summarized. A greater percent of persons in high income families or persons in metropolitan areas consulted these types of specialists and practitioners than did those in low income families or those outside metropolitan areas. 30 tables. (AEd)

973. HANNAFORD, M. M.
Proportion of surgical bill paid by insurance: Surgical patients discharged from short-stay hospitals, U.S., July 1963-June 1964.
Vital and Health Statistics. Series 10, No. 31, Sep 66.

Data from the Health Interview Survey on characteristics of surgically treated persons discharged from short-stay hospitals during the year prior to date of interview, on the proportion of the surgical bill paid by insurance for persons who had operations performed in the hospital, and on type of surgical treatment received. About 13.6 million operations were performed on 12.8 million persons discharged from short-stay hospitals. 2/3 of these people reported using insurance to pay for all or part of the surgical treatment and 2 out of 5 reported that insurance covered 3/4 or more of the surgeon's fee. 11 tables. (AEd)

974. HOFFMANN, C. H.
Health insurance coverage, U.S., July 1962-June 1963.
Vital and Health Statistics. Series 10, No. 11, Aug 64.

Statistics on the population covered by health insurance according to selected demographic characteristics. Based on data collected in the Health Interview Survey. Health insurance coverage ranged: from 34% for family incomes of less than $2,000 to 88% for family incomes of $10,000 or more; from 74% of the white population to 46% of the nonwhite population; from 37% of those in households in which the head of the family had less than 5 years education to 85% of those who had completed 13 or more years of school; from 78% for persons in the Northeast Region to 60% for the South Region. 16 tables. (AEd)

975. HOFFMAN, C. H.
Health insurance, type of insuring organization and multiple coverage, U.S., July 1962-June 1963.
Vital and Health Statistics. Series 10, No. 16, Apr 65.

Statistics on persons covered by Blue Cross-Blue Shield or other type of health insurance plan, including the extent of multiple insurance coverage, by selected demographic characteristics. Based on data collected in the Health Interview Survey. 31 tables. (AA)

976. HOFFMAN, C. H.
Volume of physician visits by place of visit and type of service, U.S., July 1963-June 1964.
Vital and Health Statistics. Series 10, No. 18, Jun 65.

Data from the Health Interview Survey on volume of physician visits for the civilian, noninstitutional population of the U.S., by type of service and place of visit as well as by a number of demographic characteristics. An average of 4.5 physician visits per person per year were made. The rate was highest for persons under 5 years and those 65 years and over. Visits increased consistently as the family income increased, from 4.3 visits among those with family income less than $2,000 to 5.1 visits for those in families with income of $10,000 or more. The physician visit rate also varied directly with population density and with the amount of educational attainment of the head of the family. 20 table. (AEd)

977. KOVAR, M. G.
Charges for care in institutions for the aged and chronically ill, U.S., May-June 1964.
Vital and Health Statistics. Series 12, No. 9, Aug 67.

Data on charges for care in residential institutions based on a survey. The average monthly charge was $194 for females and $171 for males. Average charge increased with age and level of service provided by the institution. Charges for a given type of institution or level of service were generally highest in the Northeast and the West, lower in the North Central Region, and lowest in the South. 47% listed public assistance as their primary source of payment and their average monthly charge was $179. Another 46% used their own income as their primary source of payment; their average monthly charge was $202. 23 tables. (AEd)

978. LAWRENCE, P. S., GLEESON, G. A., WHITE, E. L.
Medical care, health status, and family income, U.S.
Vital and Health Statistics. Series 10, No. 9, May 64.

The proportion who have hospital or surgical insurance coverage ranged from 34% of those with less than $2,000 income to almost 90% with incomes of $7,000 or more. Where family income is over $7,000, elderly persons, nonwhite persons, persons in large families and persons of grade school education have an excess of 70% hospital insurance coverage. Lower income was associated with fewer hospital discharges but longer average lengths of stay, fewer physician and dental visits, lower annual health expenses, higher proportion limited in activity because of a chronic condition and higher rates of disability. Data were from the Health Interview Survey. Text tables. (AEd)

979. LISCHNER, M. W.
Prevalence of respiratory symptoms in an industrial population.
Dis Chest 50:476-86, Nov 66.

For purposes of studying respiratory symptoms, 82% of an industrial population was divided into 3 groups: administrative and experimental, factory, and clerical. Chronic productive cough was present in 10%. No significant differences were found by age or sex. Smoking

habits of the 3 groups were similar and there was a statistically significant relationship between respiratory symptoms, pulmonary ventilation, and cigarette smoking. Prevalence rates of respiratory symptoms were similar among heavy smokers who had stopped and among nonsmokers, suggesting that cigarette smoking is a reversible irritant. The effects of social class or atmospheric pollution may play minor roles. (AEd)

980. LOGAN, W. P. D.
Morbidity statistics from general practice in England and Wales.
WHO Public Health Pap 27:158-62, 65.

From May 1955 to April 1956, 171 general practitioners in 106 practices carried on a morbidity survey in England and Wales comprising 382,829 patients. The results are published in a 3-volume report. Vol I gives statistical results. Consultations averaged 3.8 per patient on the doctors' lists. 67% of all patients consulted a doctor at least once. Vol II shows distribution of sickness by occupation, and a comparison is made with 1949-53 mortality data. Vol III provides a clinical discussion of the results. These statistics supplement the information now available from notification of infectious diseases and hospital records. 2 tables. 9 references. (Ed)

981. MCKEOWN, T.
Medicine and world population.
J Chronic Dis 18:1067-77, Nov 65.

In interpreting influences responsible for the rise of population in the West, the author attempts to assess the relative importance of birth rate and death rate and to account for the significant features of the behavior of the two. It is possible that the main requirement for control of population growth in developing countries today is not improved methods of contraception which can be used by the illiterate, but a general recognition of the need for reduction of family size. When this need is recognized, the birth rate will be lowered without improved techniques; until recognized, it is unlikely that improved techniques will be effective. If this interpretation is correct the problem must be solved, not in the laboratory, but in the native village. 1 table. 1 figure. (AEd)

982. MERRILL, M. H.
An expanding populace in a contracting world.
JAMA 197:632-7, 22 Aug 66.

The population growth that the world is experiencing threatens to nullify all efforts to bring about economic development and higher living standards in the underdeveloped countries. There is also grave question of world population out running food producing capacities. Malnutrition and undernourishment combine to form one of the most important health problems. Other critical problems in the less developed countries are the high rate of illiteracy and low per capita income. Physicians and health personnel will play an essential and crucial part in the attack on these problems. 5 figures. 4 references. (AEd)

983. NORTON, S. M.
Interracial births in Baltimore 1950-1964.
Public Health Rep. 81:967-71, Nov 66.

An analysis of the birth certificates registered during 1950-1964 with the Bureau of Vital Records of the Baltimore City Health Department revealed a total of 684 resident interracial births. These births represent only a small number when compared with the total number of resident births during the 15-year period. However, beginning in 1960 a gradual upward trend has been observed in the number of children born of white-Negro, white-Filipino, and white-Oriental unions. (AA)

984. ORTMEYER, C. E.
Demographic characteristics of persons married between January 1955 and June 1958.
Vital and Health Statistics. Series 21, No. 2, Apr 65.

Presents the principal demographic characteristics of couples married during 1955-1958 in the U.S. Data are for first marriages and remarriages by residence, age, color, status of husband as head of household, occupational status of husband, and employment status of wife. Data are based on a special survey of respondents in sample households interviewed in 1958 Current Population Survey. 30 Tables. 2 Appendixes (AEd)

985. ORTMEYER, C. E., WHITEMAN, E. F.
Marriage statistics analysis, U.S., 1962.
Vital and Health Statistics. Series 21, No. 10, Jan 67.

A summary of completeness of coverage for marriage data and national trends in marriage rates, and comparisons, 1958-62, among regions, geographic divisions, and States. Trend rates for 1940-62, are discussed in relation to population growth and changes in age-sex composition. Also, a detailed analysis of data on age at marriage as this varies by age of partner, by color and marital status before marriage, by choice of the month of the marriage, and by choice of a civil or religious ceremony. 12 Tables. (AEd)

986. OSBORNE, J. E.
Characteristics of hospital utilization in Canada.
Amer J Public Health 55:446-52, Mar 65.

An analysis of utilization of hospitals in Canada, with inclusion of 4 tables from the Canadian Government's "Hospital Morbidity Statistics, 1961." Three measures of hospital utilization are used—number of admissions per thousand population, average length of stay, and number of days of care per thousand population. It is concluded that utilization of hospital care is higher in Canada than in the U.S. because care for the chronically ill is included in the Canadian hospital insurance program. 4 tables. References. (Ed)

987. PLATERIS, A. A.
Divorce statistics analysis, U.S., 1963,
Vital and Health Statistics. Series 21, No. 13, Oct 67.

The divorce rate for the U.S. is higher than for any other nation that reports this information to the Statistical Office of the U.N. Data from 22 States participating in the divorce registration area indicate that the young and the remarried have an above average likelihood of divorce. The likelihood of divorce declines with increasing duration of marriage. The median duration of marriage at time of decree was 7.5 years in 1963. In 1963, divorced couples reported an estimated 1.36 children per decree, compared with 0.85 in 1953. The great majority of decrees were granted on grounds of cruelty, desertion, nonsupport, and indignities. 7 tables. (AEd)

988. SIRKEN, M. G.
Utilization of short-stay hospitals, summary of nonmedical statistics, U.S., 1965.
Vital and Health Statistics. Series 13, No. 2, Aug 67.

Utilization of short-stay hospitals based on information from hospital records for a national sample of patients discharged from short-stay hospitals. The estimated rates of hospital utilization were 153 discharges and 1,203 days of care per 1,000 civilian, noninstitutional population. The utilization of short-stay hospitals varied by age, sex, color, martial status of the patient, geographic region, and by whether the patient was discharged alive. Bed occupancy rate in short-stay hospitals was about 78%. 5 tables. (AEd)

989. STINE, O. C., RIDER, R. V., SWEENEY, E.
School leaving due to pregnancy in an urban adolescent population.
Amer J Public Health 54:1-6, Jan 64.

In recent experience in Maryland, pregnancy is the most frequent single physical reason causing an adolescent to leave school prior to graduation. More than twice as many adolescent females left school with pregnancy as the stated reason than left for all other physical or medical reasons. An excess frequency of premature births and child mortality was found related to mothers aged 16 or under. The factor of prenatal care was studied in this connection. Lines of investigation are suggested. 4 tables. 2 references. (Ed)

990. STORCK, J.
History of the U.S. National Committee on Vital and Health Statistics, 1949-1964.
Vital and Health Statistics. Series 4, No. 5, Jun 66.

Background materials for the 15th anniversary meeting of the U.S. National Committee on Vital and Health Statistics, 1964. The aim is to summarize the activities of the Committee, including its subcommittees, in enough detail to convey adequately the considerations that were weighed in reaching substantive decisions. Topics covered include vital, morbidity, hospital, military health, and fertility and population statistics, and classification drafts for the ICD revision. Text Tables. (AEd)

991. STORCK, J.
Report of the fifteenth anniversary conference of the U.S. National Committee on Vital and Health Statistics.
Vital and Health Statistics. Series 4, No. 4, Jun 66.

Suggestions for study in demographic and health statistics including mechanisms to facilitate research in these fields—such as a population register, a universal birth number, and a type of national archives. Attention should be paid to methods for obtaining answers to current questions in natality and for greater understanding of differentials and changes in mortality. Improvement in coverage of marriage and divorce statistics and more vital and health statistics for small areas are obvious needs. Other ideas for studies included relation of migration and health, epidemiologic uses of vital and health statistics, and their uses in program planning and evaluation. Text Tables. (AA)

992. TAUBE, C. A.
Employees in nursing and personal care homes: number, work experience, special training, and wages, May-June 1964.
Vital and Health Statistics. Series 12, No. 6, Jan 67.

Employees of nursing and personal care homes are described in terms of their relevant work experience, special related courses taken, a standard 40-hour week, based on a sample survey. About 20% of 176,000 employees classified as nurses, nurse's aides, and other professionals had less than 1 year of total experience and over 50% had worked less than 5 years. Relatively few had taken a formal course under college sponsorship. Median stay at current job was 1.7 years. The lowest wages were paid to nurse's aides and the highest to other professional—with medians of $44 and $89 per week, respectively. 7 tables. (AEd)

993. TAUBE, C. A.
Employees in nursing and personal care homes, U.S., May-June 1964.
Vital and Health Statistics. Series 12, No. 5, Sep 66.

Employeees in nursing and personal care homes are described in terms of their age and sex, job categories, hours worked per week, full-time equivalent staff, and ratio of residents to employees. The data are based on a sample survey of nursing homes and related facilities, including geriatric hospitals. There were more employees in nursing care homes than in other types. In nursing care homes there were about 2 residents for each full-time equivalent employee in comparison with about 3 residents per employee in other types of homes. Nursing care homes employed about 1 nurse or nurse's aide for every 3 residents, while in personal-care-with-nursing homes and personal care homes the ratios were 1 in 6 and 1 in 12, respectively. 8 tables. (AEd)

994. U.S. NATIONAL COMMITTEE ON VITAL AND HEALTH STATISTICS.
National vital statistics needs.
Vital and Health Statistics. Series 4, No. 2, Sep 65.

Analysis of the role of the national vital statistics agency, with recommendations concerning the procurement and production of regular annual data, the need for special studies, provision of technical services to the States, and other policy questions. Text tables. (AA)

995. WEGMAN, M. E.
Annual summary of vital statistics—1964.
Pediatrics 36:951-5, Dec 65.

Summary of U.S. statistics for 1964 on infant mortality, natality, marriages, general mortality, and mortality by cause of death. Discussion and comments are given. 3 tables. 3 figures 15 references (Ed)

996. WEGMAN, M. E.
Annual summary of vital statistics—1965.
Pediatrics 38:1063-7, Dec 66

Summary of U.S. statistics for 1965 on infant mortality, natality, marriages, and general mortality. Discussion and comments are given. 3 tables. 2 figures. 2 references. (Ed)

997. WHITE, E. L.
Personal health expenses, per capita annual expenses, U.S., July-December 1962.
Vital and Health Statistics. Series 10, No. 27, Feb 66.

Data on per capita expenses for the civilian, noninstitutional population based on data collected by self-enumeration, employing a mail-in-questionnaire left with the respondent for the Health Interview Survey conducted during July-Dec. 1962. Per capita personal health expenses are shown by type of expenditure, by age, sex, color, size of family, family income, and education of head of family. The average expense per person was estimated as $129 for total expenses–$30 for hospitalization, $43 for doctor care, $19 for dental care, $26 for medicines, and $11 for special and other health expenses. These expenses varied considerably by personal, social, and health characteristics. 18 tables. (AEd)

998. WILDER, C. S.
Cost and acquisition of prescribed and nonprescribed medicines, U.S., July 1964-June 1965.
Vital and Health Statistics. Series 10, No. 33, Oct 66.

Statistics from the Health Interview Survey on the cost of prescribed and nonprescribed medications per person per year and the number of acquisitions of prescribed medicines, distributed by the source from which medicine was obtained, average number per person per year, and average cost per acquisition for those that were purchased. Data are distributed by age, sex, color, family income, education of the head of family, chronic activity limitation status, residence, geographic region, and family size. 26 tables. (AEd)

999. WILDER, C. S.
Family health expenses, U.S., July-December 1962.
Vital and Health Statistics. Series 10, No. 41, Nov 67.

Statistics on the average annual cost of personal health expenses per family and per unrelated individual shown by geographic region, color, family income, and education of head of the family. Type of expenditure includes hospital, doctor or dental care, medicines, and special and other health expenses. Data were collected by self-enumeration, employing mail-in questionnaires left with the respondents of the Health Interview Survey July-Dec. 1962. 5 tables. (AEd)

1,000. WILDER, C. S.
Personal health expenses, distribution of persons by amount and type of expense, U.S., July-December 1962.
Vital and Health Statistics. Series 10, No. 22, Sep 65.

Statistics on the proportions of persons in the civilian, noninstitutional population with no personal health expense and those with expenditures during the year prior to interview, by interval of expense and type of expense based on data collected by self-enumeration. A mail-in questionnaire was left with the respondent for the Health Interview Survey. The proportion of females with expense exceeds that of males in each category of health expense. As age increased, a greater percentage of persons had expense, and there was a shift toward large amounts per year. As family income increased or educational level of the head of the family rose, the proportion of persons with no expense declined, and there was a shift toward higher expenditures. 20 tables. (AEd)

1,001. WILDER, C. S.
Physician visits, interval of visits and children's routine checkup, U.S., July 1963-June 1964
Vital and Health Statistics. Series 10, No. 19, Jun 65.

Data from the Health Interview Survey for the civilian, noninstitutional population of the U.S. by time interval since last physician visit and sex, age, residence, geographic region, color, family income, education of the head of family, usual activity status, and marital status. 66% of the population saw or talked to a physician within 12 months of the interview. About 1% reported never having seen or talked to a physician. 36% of the children under 17 years of age had a routine physical examination during the year prior to interview. 30 tables. (AEd)

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